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REPORT
OF THE
CATTLE COMMISSIONERS

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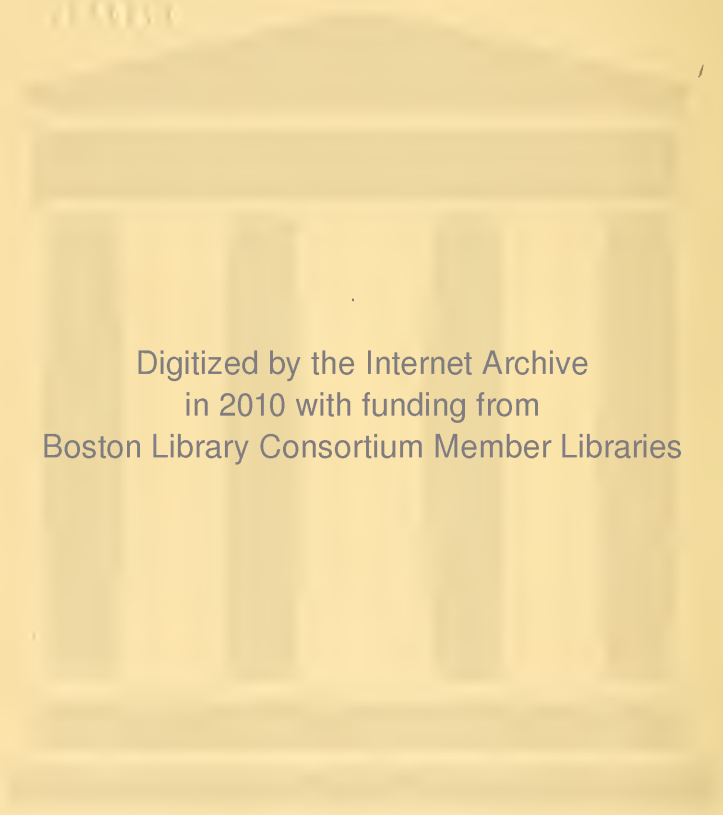
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ANNUAL REPORT



OF THE

BOARD OF CATTLE COMMISSIONERS

OF THE

COMMONWEALTH OF MASSACHUSETTS.

JANUARY 9, 1900.

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REPORT.

To the Honorable Senate and House of Representatives.

The Board of Cattle Commissioners herewith presents its annual report, as required by section 3, chapter 408, Acts of 1899, of the work it has performed during the past year.

The Legislature of 1899 recodified the laws relating to the contagious diseases of animals, this recodification being chapter 408, Acts of 1899, which went into effect May 25 last.

During the past year the commission has acted under two sets of laws: until May 25 it carried out the provisions of chapter 491, Acts of 1894, as amended by chapters 476 and 496, Acts of 1895, and further amended by chapters 454 and 486, Acts of 1896; since then it has had the enforcement of the new law to deal with.

It seemed best to the last Legislature to codify and consolidate the laws under which the Cattle Commission worked; for, although the last codification of these laws was as recent as 1894, yet there had been numerous amendments to them every year since, making them bulky, beside which they required a good deal of work from the commission which had more to do with local health matters than with the suppression of contagious diseases among domestic animals throughout the State. It was also the opinion of the last Legislature that a Board of three commissioners would be a more convenient size than one of five, as it had been since 1894, and that a smaller Board could administer the law more expeditiously and economically. The new law also brings the inspectors of animals in the various cities and towns into more direct business relations with the Board than formerly, thus stripping it of much of the red tape that had hampered it, and bringing the inspectors of animals more under the immediate control of the commission, rendering it easier to make

them act in unison with the Board and doing away with much of the delay that sometimes occurred in the management of cases of contagious diseases among the live stock of the State. The modifications made in the law it was hoped would also result in making it possible to carry forward the work of extirpating the communicable animal diseases at a much less expense to the State than heretofore, at the same time providing for ample protection to the public health.

The clause in the law under which the change was made is section 1 of chapter 408, Acts of 1899 : —

The governor, with the advice and consent of the council, shall appoint a board of cattle commissioners of not more than three members, whose terms of office shall begin on the first day of June, in the year eighteen hundred and ninety-nine, and who shall hold office as follows : one of said members for the term of three years, one for the term of two years, and one for the term of one year, and thereafter one of said members shall be appointed annually for the term of three years.

His Excellency Roger Wolcott under this provision of the law appointed Austin Peters of Boston for three years, Leander F. Herrick of Worcester for two years and Charles A. Dennen of Pepperell for one year. The appointees qualified June 8, and a meeting was immediately held, whereupon the Board organized by electing Austin Peters chairman and Leander F. Herrick secretary.

The aim of the law is, as it has been in the past, to check and diminish the ravages of diseases among domestic animals that cause annually large pecuniary losses to their owners, and at the same time to protect the people from those that are in any way a danger to the health and lives of human beings. The diseases of animals that are enumerated under the law as contagious are given in section 35, as follows : —

Contagious diseases under the provisions of this act shall include glanders, farcy, contagious pleuro-pneumonia, tuberculosis, Texas fever, foot-and-mouth disease, rinder-pest, hog cholera, rabies, anthrax or anthracoid diseases, sheep scab and actinomycosis.

If any disease, however, not given in the act should appear among the animals of the State, and seem to be of a communicable character, the Board would feel it its duty to act in such an emergency if the public good required it.

For the purpose of carrying out the provisions of this act the Legislature appropriated the sum of \$75,000; but it has been found possible to administer the law at an expense of about half this amount. This being the case, the commission has asked that a less sum, \$50,000, be placed at its disposal another year as sufficient to meet any expenses that may be caused by the provisions of the act.

It is to be hoped that the law is now placed upon a satisfactory basis, and that, if the work of controlling contagious animal diseases is to be permanent (as it should be, and has been in Massachusetts for forty years), the Cattle Commission will have a sufficient annual appropriation to meet the expenses required by the law made early in the legislative session, instead of having to wait four or five months every year before any funds are available to even pay the clerks who are necessary for attending to the business of the office. While the expenses of the law are largely due to the cost of that portion of the work entailed upon it by the effort to suppress bovine tuberculosis, this Board must not be looked upon as nothing more than a tuberculosis commission; for, while the expense is largely caused by tuberculosis, the State paying full appraised value for tuberculous cattle up to a limit not exceeding \$40, and tuberculosis among cattle being the most prevalent of the contagious animal diseases which we at present have to deal with, yet, because the cost of dealing with glanders and rabies is less, these diseases should not be looked upon as less important or less dangerous.

Every city and town was formerly required to appoint one or more inspectors of "animals and provisions," who, besides examining animals for contagious diseases, had to inspect markets, and animals at the time of slaughter either at slaughter houses or on the owners' premises, the Board of Cattle Commissioners receiving the returns of slaughtered animals from the inspectors on blanks furnished from its office. It also had to furnish blanks for applications for and

licenses of slaughter houses all over the State, and received a duplicate of each license given in every city and town. This made a great deal of extra work for the commission, and was really a local health matter, and had little to do with suppressing contagious diseases among animals. Section 20 of the new law provides that this work shall in the future be in the hands of the local boards of health.

Under the act of 1899 the Board of Cattle Commissioners knows only an inspector of animals appointed as provided for in section 17 : —

The mayor and aldermen of cities, except as provided in chapter two hundred and fifty of the acts of the year eighteen hundred and ninety-six, and the selectmen of towns shall, within thirty days after the passage of this act, and thereafter annually in the month of March, appoint one or more persons to be inspectors of animals, subject to the approval of the board of cattle commissioners. Each inspector shall be sworn faithfully to discharge the duties of his office, and shall receive a reasonable compensation, to be paid by the city or town for which he is appointed. Such city and town officers shall have the power to remove any inspector appointed by them, and in such case shall immediately appoint another in his place. Every city and town shall, within thirty days after the passage of this act, and thereafter before the first day of April in each year, send to the board of cattle commissioners a list of the qualified inspectors of animals appointed under this section for such city or town, which notice shall give the name and address of each such inspector and his occupation.

June 12 the Board sent the following letter to the mayors of cities and selectmen of towns : —

COMMONWEALTH OF MASSACHUSETTS.

BOARD OF CATTLE COMMISSIONERS,
BOSTON, June 12, 1899.

DEAR SIRS : — Herewith find a copy of chapter 408 of the Acts of 1899. This act recodifies the laws relating to the contagious diseases of animals.

You will see by section 17 that there shall be appointed, within thirty days after the passage of this act, and thereafter annually in the month of March, an *inspector* or *inspectors* of animals. Will you, therefore, immediately appoint an *inspector* of *animals*, or more than one, if you think it necessary. In most cities and towns it seems to us one inspector of animals is sufficient.

You will further note that such appointments are subject to the approval of the Board of Cattle Commissioners. This Board prefers that a competent veterinary surgeon be appointed to this position, when one resides in the locality and his services can be procured. Any unfit appointees will be rejected by this Board. You will please notify the Board of Cattle Commissioners at once upon making the appointment.

Section 20 provides that the licensing of slaughter houses and the inspection of animals killed for food, as provided for in chapter 491, Acts of 1894, and acts in amendment thereto, shall hereafter be attended to by local boards of health.

AUSTIN PETERS, *Chairman*,
LEANDER F. HERRICK, *Secretary*,
CHARLES A. DENNEN,
Board of Cattle Commissioners.

This resulted in the appointment of the following inspectors : —

TOWN.	Name.	Occupation.
Abington, . . .	John N. Chamberlain, .	Retired.
Acton, . . .	Moses A. Reed, . . .	Farmer.
Acushnet, . . .	Philip A. Bradford, . .	Farmer.
Adams, . . .	Andrew G. Potter, . . .	Veterinarian.
Agawam, . . .	Edwin Leonard, . . .	Farmer.
Alford, . . .	Samuel K. Williams, . .	Farmer.
Amesbury, . . .	Edward S. Worthen, . .	—
Amherst, . . .	Henry E. Paige, . . .	Veterinarian.
Andover, . . .	Charles H. Newton, . . .	Farmer.
Arlington, . . .	Lawrence L. Pierce, . .	Veterinarian.
Arlington, . . .	Alonzo S. Harriman, . .	Chief of police.
Ashburnham, . . .	Charles W. Whitney, . .	Farmer.
Ashby, . . .	Charles B. Shaw, . . .	Veterinarian.
Ashfield, . . .	Walter G. Lesure, . . .	Farmer.
Ashland, . . .	Samuel D. Witt, . . .	Farmer.
Athol, . . .	Oscar F. Stearns, . . .	Veterinarian.
Attleborough, . . .	George Mackie, . . .	Physician.
Attleborough, . . .	Charles S. Holden, . . .	Physician.
Auburn, . . .	Emory Stone, . . .	Farmer.
Avon, . . .	Charles E. May, . . .	Physician.

TOWN.	Name.	Occupation.
Ayer,	James J. O'Brien,	Insurance agent.
Barnstable,	J. J. Maloney,	Veterinarian.
Barre,	Henry L. Conant,	Auctioneer.
Becket,	Wm. H. Snow,	-
Bedford,	Henry Wood,	Cattle dealer
Belchertown,	Guy C. Allen,	Farmer.
Bellingham,	Carroll E. White,	Farmer.
Belmont,	Benj. A. Harris,	Veterinarian.
Berkley,	Eliphalet Terry,	Farmer.
Berlin,	Robert B. Wheeler,	Farmer.
Bernardston,	Charles Bowker,	Physician.
Beverly,	Horace D. Lambert,	Veterinarian.
Billerica,	Wm. H. Hutchins,	Farmer.
Blackstone,	Daniel H. Cooney,	Farmer.
Blackstone,	Elias M. Billings,	Farmer.
Blandford,	H. K. Herrick,	Farmer.
Blandford,	George Cadwell,	Farmer.
Blandford,	Frank J. Candee,	Farmer.
Bolton,	Henry F. Haynes,	Farmer.
Boston,	Alexander Burr,	Veterinarian.
Bourne,	Noble P. Swift,	Farmer.
Boxborough,	Philip W. Cunningham,	Farmer.
Boxford,	Charles A. Andrews,	Farmer.
Boylston,	Luther S. Hapgood,	Farmer.
Braintree,	Edward W. Hobart,	Farmer.
Brewster,	Henry E. Baker,	Trader.
Bridgewater,	Calvin Pratt,	Physician.
Brimfield,	Porter A. Parker,	Farmer.
Brockton,	Waldo H. Brownell,	Veterinarian.
Brockton,	Isaac H. Harris,	Laborer.
Brookfield,	George Allen,	Farmer.
Brookline,	Frederick H. Osgood,	Veterinarian.
Buckland,	Jacob G. Pfersick,	Veterinarian.
Burlington,	James N. Stuart,	Veterinarian.
Cambridge,	Charles E. Hadcock,	Veterinarian.
Canton,	Patrick J. Cronon,	Veterinarian.
Carlisle,	George P. Davis,	Farmer.

TOWN.	Name.	Occupation.
Carver, . . .	Benj. W. Robbins, . . .	Farmer.
Charlemont, . . .	Wm. B. Avery, . . .	Farmer.
Charlton, . . .	Stephen Hammond, . . .	Butcher.
Chatham, . . .	Walden F. Harding, . . .	Butcher.
Chelmsford, . . .	Walter R. Winning, . . .	Farmer.
Chelsea, . . .	William Stinson, . . .	Veterinarian.
Cheshire, . . .	Wm. P. Bennett, . . .	Retired.
Chester, . . .	Daniel B. Holcomb, . . .	Retired.
Chesterfield, . . .	Thomas K. Utley, . . .	Farmer.
Chicopee, . . .	Irving H. Elmer, . . .	Butcher.
Chicopee, . . .	Thomas Goodwin, . . .	Veterinarian.
Chilmark, . . .	Freeman Hancock, . . .	Farmer.
Clarksburg, . . .	Dexter S. Bishop, . . .	Farmer.
Clinton, . . .	Eugene H. Lehnert, . . .	Veterinarian.
Cohasset, . . .	Darius W. Gilbert, . . .	Veterinarian.
Colrain, . . .	C. Webster Smith, . . .	Farmer.
Colrain, . . .	John D. Gilchrist, . . .	Farmer.
Concord, . . .	Elijah D. Harris, . . .	Veterinarian.
Conway, . . .	Gordon H. Johnson, . . .	Farmer.
Cottage City, . . .	Edmund G. Beetle, . . .	Retired.
Cummington, . . .	Edward F. Warner, . . .	Farmer.
Cummington, . . .	Myron D. Trow, . . .	Farmer.
Dalton, . . .	Wm. Miller, . . .	Farmer.
Dana, . . .	C. N. Doane, . . .	Farmer.
Dana, . . .	Alfred W. Doane, . . .	Farmer.
Danvers, . . .	Charles S. Moore, . . .	Veterinarian
Dartmouth, . . .	Charles W. Howland, . . .	Farmer.
Dartmouth, . . .	Charles H. Negus, . . .	Butcher.
Dartmouth, . . .	James E. Allen, . . .	Farmer.
Dedham, . . .	Edward Knobel, . . .	Veterinarian.
Deerfield, . . .	Dwight A. Hawks, . . .	Farmer.
Dennis, . . .	John P. Howes, . . .	Farmer.
Dennis, . . .	Charles E. Baker, . . .	Painter.
Dighton, . . .	Wm. H. Walker, . . .	Farmer.
Douglas, . . .	Walter E. Cook, . . .	Farmer.
Dover, . . .	Edward A. James, . . .	Farmer.
Dracut, . . .	Clement A. Hamblet, . . .	Veterinarian.

TOWN.	Name.	Occupation.
Dudley, . . .	Monroe W. Ide, . . .	Farmer.
Dunstable, . . .	Franklin N. Tolles, . . .	Veterinarian.
Duxbury, . . .	John K. Parker, . . .	Farmer.
East Bridgewater, . . .	Isaac T. Hatch, . . .	Veterinarian.
East Longmeadow, . . .	Edwin Indicott, . . .	Farmer.
Eastham, . . .	Reuben H. Horton, . . .	Farmer.
Easthampton, . . .	Fordyce Whitmarsh, . . .	Retired.
Easton, . . .	Edward R. Hayward, . . .	Farmer.
Edgartown, . . .	Christopher R. Beetle, . . .	Farmer.
Egremont, . . .	Wm. F. Crippen, . . .	Farmer.
Enfield, . . .	Joseph P. Walker, . . .	Farmer.
Erving, . . .	W. P. G. Huntoon, . . .	Farmer.
Essex, . . .	David L. Haskell, . . .	Farmer.
Everett, . . .	William Stinson, . . .	Veterinarian.
Fairhaven, . . .	Ebenezer G. Grinnell, . . .	Farmer.
Fall River, . . .	Joseph E. E. Lanoie, . . .	Physician.
Falmouth, . . .	Barzillai C. Cahoon, . . .	Horse dealer.
Falmouth, . . .	Herbert H. Lawrence, . . .	Farmer.
Falmouth, . . .	Lewis F. Weeks, . . .	Veterinarian.
Fitchburg, . . .	Charles A. Keene, . . .	Veterinarian.
Florida, . . .	Nathan W. Kemp, . . .	Farmer.
Foxborough, . . .	Abijah W. Draper, . . .	Veterinarian.
Foxborough, . . .	Norton R. Dennis, . . .	Butcher.
Framingham, . . .	Walter P. Mayo, . . .	Veterinarian.
Franklin, . . .	Wm. F. King, . . .	Farmer.
Freetown, . . .	Charles H. Read, . . .	Gunsmith.
Freetown, . . .	Charles E. Chace, . . .	Farmer.
Gardner, . . .	Augustus S. Cleaves, . . .	Veterinarian.
Gay Head, . . .	Samuel J. Haskins, . . .	Farmer.
Georgetown, . . .	Samuel T. Poor, . . .	Farmer.
Georgetown, . . .	J. Winfred Yeaton, . . .	Farmer.
Gill, . . .	John L. S. Moore, . . .	Farmer.
Gloucester, . . .	Fred Corliss, . . .	Stone mason.
Goshen, . . .	Willis A. Smith, . . .	Farmer.
Gosnold, . . .	George F. Bosworth, . . .	Farmer.
Grafton, . . .	Perley Goddard, . . .	Farmer.
Granby, . . .	F. A. Forward, . . .	Farmer.

TOWN.	Name.	Occupation.
Granville, . . .	George W. Cone, . . .	Farmer.
Granville, . . .	Charles D. Treat, . . .	Farmer.
Great Barrington, . .	Edwin S. Hurlburt, . .	Veterinarian.
Great Barrington, . .	George H. Cobb, Jr., . .	Liveryman.
Greenfield, . . .	Mark L. Miner, . . .	Veterinarian.
Greenwich, . . .	Edward M. Hunter, . .	Farmer.
Groton, . . .	Solon R. Dodge, . . .	Butcher.
Groveland, . . .	Thomas E. Snell, . . .	Farmer.
Hadley, . . .	Charles H. Hunt, . . .	Farmer.
Hadley, . . .	Homer L. Cowles, . . .	Farmer.
Halifax, . . .	Jabez P. Thompson, . .	Farmer.
Hamilton, . . .	George R. Dodge, . . .	Farmer.
Hampden, . . .	Moses H. Warren, . . .	Farmer.
Hancock, . . .	James S. Goold, . . .	Farmer.
Hanover, . . .	Andrew T. Damon, . .	Grocer.
Hanson, . . .	Elbridge M. Perkins, . .	Farmer.
Hardwick, . . .	John N. Hillman, . . .	Farmer.
Harvard, . . .	Eli W. Hosmer, . . .	Farmer.
Harwich, . . .	John A. Baker, . . .	Produce dealer.
Hatfield, . . .	E. S. Warner, . . .	Farmer.
Haverhill, . . .	Grantley Bickell, . . .	Veterinarian.
Hawley, . . .	Lewis W. Temple, . . .	Farmer.
Heath, . . .	V. D. Thompson, . . .	Farmer.
Hingham, . . .	R. Foster Robinson, . .	Farmer.
Hinsdale, . . .	Frank C. Phillips, . . .	Farmer.
Holbrook, . . .	Charles W. Staples, . .	Farmer.
Holden, . . .	E. W. Merrick, . . .	Deputy sheriff.
Holland, . . .	A. J. Bagley, . . .	Carpenter.
Holliston, . . .	Isaac A. Smith, . . .	Veterinarian.
Holyoke, . . .	John J. Moynahan, . . .	Veterinarian.
Hopedale, . . .	Lewis B. Gaskill, . . .	Farmer.
Hopkinton, . . .	Winslow W. Clafin, . .	Farmer.
Hubbardston, . . .	John H. Burtch, . . .	Farmer.
Hudson, . . .	A. L. Cundall, . . .	Veterinarian.
Hull, . . .	Fred C. Harris, . . .	Milkman.
Huntington, . . .	Allen M. Coit, . . .	Farmer.
Huntington, . . .	Frank E. Cone, . . .	Farmer.

TOWN.	Name.	Occupation.
Hyde Park, . . .	Joseph M. Kiggen, . . .	Veterinarian.
Ipswich, . . .	E. Newton Brown, . . .	Farmer.
Kingston, . . .	E. Elbridge Atwood, . . .	Farmer.
Lakeville, . . .	Isaac Sampson, . . .	Farmer.
Lancaster, . . .	Albert E. Harriman, . . .	Veterinarian.
Lancaster, . . .	Albert E. Carr, . . .	Farmer.
Lanesborough, . . .	Wm. P. Talcott, . . .	Painter.
Lawrence, . . .	John F. Winchester, . . .	Veterinarian.
Lee, . . .	John H. McAllister, . . .	Veterinarian.
Leicester, . . .	Henry B. Watts, . . .	Florist.
Leicester, . . .	Daniel A. Craig, . . .	Farmer.
Lenox, . . .	Charles C. Flint, . . .	Physician.
Leominster, . . .	Wm. H. Dodge, . . .	Veterinarian.
Leverett, . . .	Orman C. Marvell, . . .	Farmer.
Lexington, . . .	Charles M. Parker, . . .	Farmer.
Leyden, . . .	Wm. A. Barber, . . .	Farmer.
Lincoln, . . .	Martin M. Welch, . . .	Farmer.
Littleton, . . .	Joseph N. Murray, . . .	Veterinarian.
Longmeadow, . . .	Spencer W. Gates, . . .	Farmer.
Lowell, . . .	Walter A. Sherman, . . .	Veterinarian.
Ludlow, . . .	Adelbert L. Bennett, . . .	Farmer.
Lunenburg, . . .	Charles E. Woods, . . .	Physician.
Lynn, . . .	Alexander S. Wright, . . .	Accountant.
Lynnfield, . . .	Wm. R. Roundy, . . .	Farmer.
Malden, . . .	Wm. Simpson, . . .	Veterinarian.
Manchester, . . .	Charles S. Moore, . . .	Veterinarian.
Mansfield, . . .	Joseph N. Tebbetts, . . .	Farmer.
Marblehead, . . .	Benj. F. Goodwin, . . .	Building mover
Marion, . . .	George F. Richards, . . .	Contractor.
Marlborough, . . .	Patrick J. Mahoney, . . .	Veterinarian.
Marshfield, . . .	Franklin W. Hatch, . . .	Stable keeper.
Mashpee, . . .	Nathaniel D. Bearse, . . .	Laborer.
Mattapoisett, . . .	Fred L. Dexter, . . .	Stable keeper.
Maynard, . . .	Willis A. White, . . .	Cattle dealer.
Medfield, . . .	Herbert W. Hutson, . . .	Farmer.
Medford, . . .	Henry F. Moore, . . .	Milk inspector.
Medway, . . .	Edward Whiting, . . .	Farmer.

TOWN.	Name.	Occupation.
Melrose, . . .	Frank P. Sturges, . . .	Veterinarian.
Mendon, . . .	Albert W. Gaskill, . . .	Farmer.
Merrimac, . . .	Charles A. Wallace, . . .	Farmer.
Methuen, . . .	Edwin J. Castle, . . .	Veterinarian.
Middleborough, . . .	Chester P. Keith, . . .	Veterinarian.
Middlefield, . . .	J. T. Bryan, . . .	Farmer.
Middleton, . . .	Andrew W. Peabody, . . .	Farmer.
Milford, . . .	Edward E. Cook, . . .	Livery stable.
Millbury, . . .	Henry W. Carter, . . .	Farmer.
Millis, . . .	Moses C. Adams, . . .	Farmer.
Milton, . . .	James Spencer, . . .	Veterinarian.
Monroe, . . .	David H. Sherman, . . .	Farmer.
Monson, . . .	Wm. H. Bugbee, . . .	Farmer.
Montague, . . .	George H. Goddard, . . .	Farmer.
Montague, . . .	S. H. Amidon, . . .	Builder.
Monterey, . . .	Delmer C. Tryon, . . .	Farmer.
Montgomery, . . .	W. B. Cushman, . . .	Farmer.
Mount Washington, . . .	Alfred I. Spurr, . . .	Veterinarian.
Nahant, . . .	Robert L. Cochran, . . .	Health officer.
Nantucket, . . .	Herbert G. Worth, . . .	Stable keeper.
Natick, . . .	John W. Robinson, . . .	Veterinarian.
Needham, . . .	Samuel O. Fowle, . . .	Veterinarian.
New Ashford, . . .	Van Ness Mallery, . . .	Farmer.
New Bedford, . . .	Daniel C. Ashley, . . .	Veterinarian.
New Braintree, . . .	Charles A. Felton, . . .	Farmer.
New Marlborough, . . .	Ralph I. Rhoades, . . .	Farmer.
New Salem, . . .	Frederick Abbott, . . .	Farmer.
Newbury, . . .	Asa Pingree, . . .	Farmer.
Newburyport, . . .	George W. Knight, . . .	Health officer.
Newton, . . .	James R. McLaughlin, . . .	Veterinarian.
Norfolk, . . .	Andrew R. Jones, . . .	Farmer.
North Adams, . . .	Angus A. McDonell, . . .	Veterinarian.
North Andover, . . .	George S. Fuller, . . .	Veterinarian.
North Attleborough, . . .	W. Henry Kling, . . .	Printer.
North Brookfield, . . .	Alfred O. Boyd, . . .	Veterinarian.
North Brookfield, . . .	Benj. F. Barnes, . . .	Veterinarian.
North Reading, . . .	F. H. Mosman, . . .	Expressman.

TOWN.	Name.	Occupation.
Northampton, . .	John H. Roberts, . .	Veterinarian.
Northborough, . .	Allyn D. Phelps, . .	Farmer.
Northbridge, . .	George F. Nilsson, . .	Farmer.
Northbridge, . .	W. A. Beane, . .	Farmer.
Northfield, . .	A. L. Newton, . .	Physician.
Norton, . .	Erastus B. Coddington, . .	Farmer.
Norwell, . .	J. Warren Foster, . .	Peddler.
Norwood, . .	Albert Fales, . .	Farmer.
Oakham, . .	Sanford H. Bullard, . .	Farmer.
Orange, . .	Amos Blodgett, . .	Farmer.
Orleans, . .	Edmund Linnell, . .	Farmer.
Otis, . .	Edwin L. Downs, . .	Farmer.
Oxford, . .	Fred L. Snow, . .	Farmer.
Palmer, . .	Charles F. Smith, . .	Farmer.
Palmer, . .	E. W. Phinney, . .	Farmer.
Paxton, . .	Cleveland N. Glidden, . .	Farmer.
Peabody, . .	Charles Davis, . .	Veterinarian.
Peabody, . .	Cyrus T. Batchelder, . .	Assessor.
Peabody, . .	John E. Herrick, . .	Farmer.
Pelham, . .	John A. Page, . .	Farmer.
Pembroke, . .	Clifford I. Rogers, . .	Farmer.
Pepperell, . .	Samuel P. Bancroft, . .	Farmer.
Peru, . .	F. G. Creamer, . .	Merchant.
Petersham, . .	S. C. Goddard, . .	Farmer.
Phillipston, . .	Robt. E. McLane, . .	Farmer.
Pittsfield, . .	George N. Kinnell, . .	Veterinarian.
Plainfield, . .	E. A. Atkins, . .	Farmer.
Plainfield, . .	D. H. Gould, . .	Farmer.
Plymouth, . .	Clark Finney, Jr., . .	Milkman.
Plympton, . .	Howard O. Bonney, . .	Farmer.
Prescott, . .	Henry N. Grover, . .	Cream gatherer.
Princeton, . .	George Mason, Jr., . .	Farmer.
Provincetown, . .	Artemus P. Hannum, . .	Town official.
Quincy, . .	Francis Abele, Jr., . .	Veterinarian.
Randolph, . .	Lincoln Stetson, . .	Cattle dealer.
Raynham, . .	Cyrus Leonard, 2d, . .	Cattle dealer.
Reading, . .	Calvert H. Playdon, . .	Veterinarian.

TOWN.	Name.	Occupation.
Rehoboth, . . .	Joseph F. Earle, . . .	Town auditor.
Revere, . . .	William Stinson, . . .	Veterinarian.
Richmond, . . .	C. H. Dorr, . . .	Farmer.
Rochester, . . .	Allen G. Ashley, . . .	Farmer.
Rockland, . . .	Charles Winslow, . . .	Veterinarian.
Rockport, . . .	Robert Tarr, . . .	Farmer.
Rowe, . . .	E. M. Upton, . . .	Farmer.
Rowley, . . .	Daniel H. Hale, . . .	Farmer.
Rowley, . . .	J. Scott Todd, . . .	Farmer.
Royalston, . . .	George E. Pierce, . . .	Farmer.
Royalston, . . .	John Davis, . . .	Farmer.
Royalston, . . .	Joseph Stewart, . . .	Farmer.
Russell, . . .	Sidney S. Shurtleff, . . .	Farmer.
Rutland, . . .	George S. Putnam, . . .	—
Salem, . . .	Fred J. Saunders, . . .	Veterinarian.
Salisbury, . . .	John Q. Evans, . . .	Farmer.
Sandisfield, . . .	Henry S. Manley, . . .	Farmer.
Sandwich, . . .	Joshua E. Holway, . . .	Farmer.
Saugus, . . .	Arthur W. Sawyer, . . .	Veterinarian.
Savoy, . . .	H. C. Phelps, . . .	Farmer.
Savoy, . . .	M. A. Bliss, . . .	Farmer.
Scituate, . . .	Caleb L. Damon, . . .	Farmer.
Seekonk, . . .	Robt. Woodward, . . .	Farmer.
Sharon, . . .	C. Elbert Howard, . . .	Farmer.
Sheffield, . . .	Henry C. Clark, . . .	Town clerk.
Sheffield, . . .	Edwin L. Boardman, . . .	Farmer.
Shelburne, . . .	Jacob G. Pfersick, . . .	Veterinarian.
Sherborn, . . .	Jasper J. Smart, . . .	Veterinarian.
Shirley, . . .	Samuel B. Scott, . . .	Farmer.
Shrewsbury, . . .	John F. Knight, . . .	Farmer.
Shutesbury, . . .	Fred H. Plympton, . . .	Farmer.
Somerset, . . .	Thomas A. Francis, . . .	Marketman.
Somerville, . . .	Charles M. Berry, . . .	Provision dealer.
South Hadley, . . .	Horace W. Gaylord, . . .	Farmer.
Southampton, . . .	Henry E. Coleman, . . .	Farmer.
Southborough, . . .	Israel G. Howe, . . .	Farmer.
Southbridge, . . .	J. A. Genereaux, . . .	Physician.

TOWN.	Name.	Occupation.
Southwick, . . .	Charles W. Talmadge, .	Farmer.
Spencer, . . .	W. J. Meloche, . . .	Veterinarian.
Springfield, . . .	James Kimball, . . .	Health officer.
Sterling, . . .	William S. Walker, . . .	Farmer.
Stockbridge, . . .	Marshall S. Heath, . . .	Farmer.
Stockbridge, . . .	John M. Buck, . . .	Farmer.
Stoneham, . . .	George H. Allen, . . .	Veterinarian.
Stoughton, . . .	James Murphy, . . .	Veterinarian.
Stow, . . .	Pearl W. Packard, . . .	Farmer.
Sturbridge, . . .	William Whittemore, .	Farmer.
Sudbury, . . .	George A. Haynes, . . .	Farmer.
Sunderland, . . .	George P. Smith, . . .	Farmer.
Sutton, . . .	H. Scott Stockwell, . .	Farmer.
Swampscott, . . .	George Newhall, . . .	Gardener.
Swanzy, . . .	Charles Gifford, . . .	Farmer.
Taunton, . . .	Walter H. Haskell, . .	Veterinarian.
Templeton, . . .	S. E. Greenwood, . . .	Physician.
Templeton, . . .	W. F. Robie, . . .	Physician.
Tewksbury, . . .	George W. Trull, . . .	Farmer.
Tisbury, . . .	Henry C. Norton, . . .	Farmer.
Tolland, . . .	John R. Rogers, . . .	Farmer.
Tolland, . . .	Luke R. Moore, . . .	Farmer.
Topsfield, . . .	Eugene L. Wildes, . . .	Farmer.
Townsend, . . .	John N. Going, . . .	Farmer.
Truro, . . .	John G. Thompson, . .	Trader.
Tyngsborough, . . .	R. B. Sherburne, . . .	Farmer.
Tyringham, . . .	Isaac B. Tinker, . . .	Farmer.
Upton, . . .	George D. Whitney, . .	Farmer.
Uxbridge, . . .	Charles E. Seagrave, . .	Farmer.
Wakefield, . . .	Henry C. Perry, . . .	Veterinarian.
Wales, . . .	Warren W. Eager, . . .	Wool dealer.
Walpole, . . .	Almond F. Boyden, . . .	Farmer.
Waltham, . . .	Wm. E. Peterson, . . .	Veterinarian.
Ware, . . .	A. A. Etienne, . . .	Veterinarian.
Wareham, . . .	Prince H. Swift, . . .	Farmer.
Warren, . . .	William E. Patrick, . .	Farmer.
Warwick, . . .	Gilbert Maynard, . . .	Farmer.

TOWN.	Name.	Occupation.
Washington, . . .	William A. Eames, . . .	Farmer.
Watertown, . . .	George W. Pope, . . .	Veterinarian.
Wayland, . . .	Thomas Bryant, . . .	Veterinarian.
Webster, . . .	Leon H. Paquin, . . .	Veterinarian.
Wellesley, . . .	Samuel O. Fowle, . . .	Veterinarian.
Wellfleet, . . .	George W. Nickerson, . . .	Horse dealer.
Wendell, . . .	George A. Lewis, . . .	Farmer.
Wenham, . . .	Henry Alley, . . .	Apiarist.
West Boylston, . . .	H. J. Harlow, . . .	—
West Bridgewater, . . .	David R. Simmons, . . .	Retired.
West Brookfield, . . .	Charles E. Smith, . . .	Farmer.
West Newbury, . . .	Alfred L. Moore, . . .	Farmer.
West Springfield, . . .	Thomas J. Shinkwin, . . .	Veterinarian.
West Stockbridge, . . .	Ralph R. Bissell, . . .	Farmer.
West Tisbury, . . .	William B. Luce, . . .	Fisherman.
Westborough, . . .	Albert B. Ward, . . .	Farmer.
Westfield, . . .	Michael F. Hoar, . . .	Veterinarian.
Westford, . . .	George T. Day, . . .	Farmer.
Westford, . . .	Albert P. Richardson, . . .	Farmer.
Westhampton, . . .	A. D. Montague, . . .	Farmer.
Westminster, . . .	M. D. Whitney, . . .	Farmer.
Weston, . . .	Everett O. Clark, . . .	Cattle dealer.
Weston, . . .	Gilbert A. Blood, . . .	Cattle dealer.
Westport, . . .	George A. Tripp, . . .	Farmer.
Westport, . . .	Eli Handy, . . .	Farmer.
Weymouth, . . .	Hiram E. Raymond, . . .	Janitor.
Whately, . . .	Irving Allis, . . .	Farmer.
Whitman, . . .	Owen F. Bumpus, . . .	Veterinarian.
Wilbraham, . . .	Jesse L. Rice, . . .	—
Williamsburg, . . .	Hallock H. Nichols, . . .	Farmer.
Williamstown, . . .	Lemuel C. Torrey, . . .	Farmer.
Wilmington, . . .	H. Allen Sheldon, . . .	Farmer.
Winchendon, . . .	William A. DeLand, . . .	Auctioneer.
Winchester, . . .	John W. Hemingway, . . .	Milkman.
Windsor, . . .	H. W. Ford, . . .	Farmer.
Windsor, . . .	G. L. Miner, . . .	Farmer.
Winthrop, . . .	John McNaught, . . .	Veterinarian.

TOWN.	Name.	Occupation.
Woburn, . . .	James N. Stuart, . . .	Veterinarian.
Worcester, . . .	Thomas Monahan, . . .	Butcher.
Worthington, . . .	Charles F. Bates, . . .	Farmer.
Wrentham, . . .	Elisha M. Brastow, . . .	Veterinarian.
Westwood, . . .	Creighton Colburn, . . .	Veterinarian.
Yarmouth, . . .	James Lack, . . .	Farmer.
Yarmouth, . . .	Isaiah Homer, . . .	Farmer.
Yarmouth, . . .	Isaiah Crowell, . . .	Farmer.

It will be seen from the above list that many of the inspectors are veterinarians, especially in the cities and larger towns. This is very desirable where the services of such men can be obtained, as they have a technical training in the diseases of animals that especially fits them for the positions, provided they are citizens of good standing in the community and take an interest in the duties devolving upon them; at the same time, an honest, painstaking inspector who is not a veterinarian is to be preferred to a veterinarian who is careless and slovenly in doing his work, and who lacks interest and integrity of purpose. In many of the smaller communities it is not possible to secure the services of a veterinary surgeon as inspector; in such instances any conscientious cattle man makes a good inspector. Physicians, when interested in sanitary work, also make good inspectors. In a few places there is a tendency to allow politics to play a part in the appointment of inspectors, but in the great majority of the towns and cities of the Commonwealth there seems to be an intention to endeavor to secure the services of the best available men for these positions.

The section of the present law requiring cities and towns to appoint inspectors of animals provides that they shall be appointed subject to the approval of the Board of Cattle Commissioners. This gives the Board the power to refuse to confirm unfit appointments, and thus removes them to a certain extent from the influence of local politics, and ren-

ders it possible to elevate and improve the service. The Board under the law is also empowered to remove an inspector, if necessary, and order the appointment of another.

Tuberculosis is the disease for which the greater number of animals have been killed, and it is also the one which causes the most expense in carrying out the provisions of the law, therefore it will be referred to first in this report; but glanders and rabies must not be considered as being of very much less importance, when the dangers to human life and the losses the former causes to the horse owners of the State are taken into consideration.

Other diseases of an infectious character with which this Board has to deal are Texas fever, hog cholera or swine plague, actinomyces and symptomatic anthrax.

The pathological and bacteriological work of the Board has been performed, as in the past two years, at the Harvard Medical School, by Dr. Langdon Frothingham, except that during a few months last summer while he was in Europe it was done at the laboratories at Bussey College, Forest Hills, by Dr. Arthur W. May, through the kind permission of Dr. Theobald Smith. For the laboratory facilities during the summer, and the kindly and valuable advice Dr. Smith has ever been ready to give the Massachusetts Cattle Commission, the renewed thanks of this Board are here given.

The Board was represented by its chairman at the annual meeting of the Interstate Association of Live Stock Sanitary Boards, held at Chicago, October 11 and 12, and was the only New England cattle commission represented. At this meeting the interests of the delegates from the south and south-west seemed to be centred in Texas fever; but those from points north of the Ohio and east of the Mississippi rivers appeared interested in diseases similar to those that we are likely to meet with in Massachusetts, as the conditions of agriculture in these states more nearly approach those of our own. The conference of the different cattle interests represented, together with the papers read and the discussions resulting from them, could not be otherwise than of mutual benefit to all present.

FINANCIAL STATEMENT.

At the end of the year 1898, the appropriation made by the Legislature of that year being insufficient for the work of the commission, there remained unpaid bills to the amount of \$4,900.42, as follows:—

For salaries of commissioners,	\$3,060 00
For expenses of commissioners,	1,132 18
For salaries and expenses of agents in the suppression of glanders,	87 42
For expenses of laboratory and experimental work in the suppression of glanders and rabies,	145 75
For expenses of killing and burial of glandered horses, . . .	28 00
For expenses of maintaining quarantine stations at Brighton, Watertown and Somerville,	447 07
Total,	<u>\$4,900 42</u>

The payment of these accounts was provided for by the un- expended balance of the appropriation for 1898,	\$385 63
And a deficiency appropriation made by chapter 95, Acts of 1899, approved Feb. 23, 1899, for the balance,	4,514 79
Total,	<u>\$4,900 42</u>

The Legislature of 1899 made an appropriation of \$75,000 for carrying on the work of the Cattle Commission, under the provisions of chapter 408, Acts of 1899.

The expenses of the work of “the extirpation, prevention and suppression of contagious diseases among domestic animals” for the year 1899, including all bills rendered and claims adjusted to December 15, are as follows:—

Paid for cattle condemned, killed and found tuberculous, 785 head, at an average of \$22 each,	\$17,277 69
Paid for cattle condemned, killed and no lesions found, 17 head, at an average of \$23.24 each,	395 12
Paid for expenses of quarantine on 4 head,	9 00
Paid for expense of killing and burial,	9 00
	<u>\$17,690 81</u>
Paid for salaries of commissioners,	\$2,890 00
Paid for expenses of commissioners,	1,151 29
Paid for salaries of agents,	1,852 39

Paid for expenses of agents,	\$940 20
Paid for salaries of clerks and stenographers,	2,108 50
Paid for postage, stationery, printing and other office expenses,	990 36
Paid expenses of laboratory and experimental work,	585 47
Paid expenses of quarantine stations,	1,640 13
Paid expenses of glanders, killing and burial,	51 05
Paid for tuberculin and implements,	148 08
	<hr/>
	\$12,357 47
Total payments,	<hr/>
	\$30,048 28

There has been received during the year from sales of hides and carcasses of condemned cattle, and paid to the State Treasurer, \$771.57.

It is estimated that claims on cattle that have not been settled and bills coming due January 1 amount to in the neighborhood of \$12,000, making the total expenses of the year somewhat over one-half of the sum appropriated.

TUBERCULOSIS.

It will be seen from the above financial statement that the principal expenses incurred by the Board are in connection with the control of bovine tuberculosis. This work may be classified under the following heads:—

1. The supervision of the traffic in live cattle brought into the State.

2. A general inspection, the examination of cattle quarantined as diseased by the local inspectors in the various cities and towns, and the payment for those found to be infected with tuberculosis.

3. Testing entire herds for the purpose of permanently eradicating tuberculosis from the premises.

Under the first head are the cattle brought into the State through the quarantine yards at Watertown, Brighton and Somerville, and those brought in on permits to other points.

The first step necessary for continuing the control of the cattle business was to readopt the order of the previous Board; therefore, at a meeting of the Board of Cattle Commissioners, held June 26, the following order was adopted:—

COMMONWEALTH OF MASSACHUSETTS.

BOARD OF CATTLE COMMISSIONERS,
COMMONWEALTH BUILDING, 11 MT. VERNON ST.,
BOSTON, June 26, 1899.

To All Persons whom it may concern.

By virtue of the power and authority in us vested by law, and especially under the provisions of chapter 408 of the Acts of the year 1899, you are hereby notified that tuberculosis, which is a contagious disease, and is so recognized under the laws of this Commonwealth, exists among cattle of the several States and Territories of the United States, the District of Columbia and Canada, and such localities are, in the opinion of this Board, infected districts.

You are hereby further notified that, in order to prevent the importation of diseased animals, and as a means of suppressing such diseases within this Commonwealth, this Board has passed the following order: —

First. — No neat cattle brought from any State or Territory of the United States, the District of Columbia, Canada or any other country without the limits of this Commonwealth, shall be brought within the limits of this Commonwealth, except for delivery directly to the Union stock yards in the town of Watertown, the Boston & Albany stock yards in Brighton, within the city of Boston, or the premises of the New England Dressed Beef and Wool Company in the city of Somerville, except upon a permit signed by the Board of Cattle Commissioners or some one of its members; and no neat cattle so brought for delivery at any of said points shall be unloaded, except in case of accident, at any point other than the said Boston & Albany stock yards in Brighton, the Union stock yards in Watertown, or the New England Dressed Beef and Wool Company in Somerville.

Second. — All neat cattle brought within the limits of this Commonwealth from any place designated in paragraph 1 hereof, except for delivery as provided in the preceding paragraph, must be accompanied by a permit issued by this Board or some member thereof; and you are hereby forbidden to receive for transportation animals other than those designated in such permit.

Third. — If, for any cause, any such neat cattle are received by any of your agents within the limits of this Commonwealth at any place other than the Union stock yards in Watertown, the Boston & Albany stock yards in Brighton or the New England Dressed Beef and Wool Company in Somerville, not accompanied by a permit, as provided in paragraph 2 hereof, you will immediately notify this office, giving the place where said animals were received for shipment, the name of the consignee and destination of said animals. You will not remove said animals or permit them to be removed from the car or vehicle in which

they are contained without a permit from this Board or some member thereof; except that if, by reason of the crowded condition of the car or because of the long confinement of said animals within the same, or for accident or otherwise, it is deemed expedient by you or your agent to unload the same, such animal or animals may be removed by you from said car or vehicle without such permit; but in such case you will notify this office, and you will not allow said animal or animals to go out of the possession of your agent or off of your premises where said animals are unloaded except upon obtaining such permit.

Fourth. — All neat cattle brought within the limits of the premises to Brighton, Watertown and Somerville, designated in paragraph 1 hereof, are hereby declared to be quarantined.

Fifth. — Any person violating the provisions of this order will be punished as provided in section 36 of chapter 408 of the Acts of the year 1899.

This order shall take effect upon the twenty-sixth day of June, 1899.

AUSTIN PETERS, *Chairman*,
LEANDER F. HERRICK, *Secretary*,
CHARLES A. DENNEN,
Board of Cattle Commissioners.

The Board of Cattle Commissioners requires all persons bringing cattle into this State, except calves under six months old or beef cattle for immediate slaughter, to have them tested with tuberculin prior to shipment or after arrival in this State, unless special permission to the contrary is given by this Board. All persons shipping or driving cattle into Massachusetts must have a permit, unless sent by rail to one of the quarantine stations at Brighton, Watertown or Somerville.

The examination of cattle coming from without the State for sale in the markets of Brighton, Watertown and Somerville has been continued throughout the year, and the following tables show the numbers of animals received at the several stations: —

Receipts of Stock at Watertown, from Dec. 15, 1898, to Dec. 15, 1899.

Vermont cattle,	6,116
New Hampshire cattle,	6,403
Massachusetts cattle,	2,454
New York cattle,	27
Western cattle,	54,283

Sheep,	330,419
Swine,	792,781
Veal,	46,628
Horses from the west, of which 42 were exported, .	168
Cattle released on certificates,	6,715
Cattle tested,	53
Cattle released after test,	52
Cattle condemned after test,	1

Receipts of Stock at Brighton, from Dec. 15, 1898, to Dec. 15, 1899.

Maine cattle,	12,833
New Hampshire cattle,	2,276
Massachusetts cattle,	12,836
New York cattle,	712
Western cattle,	82,301
Sheep,	25,746
Swine,	812,646
Veal,	38,607
Horses from the west, for export,	50
Cattle released on certificates,	10,658
Cattle tested,	328
Cattle released after test,	317
Cattle condemned after test,	11
Massachusetts cattle in stock barn,	16,724

Receipts of Stock at Somerville, from Dec. 15, 1898, to Dec. 15, 1899.

Maine cattle,	1,030
New Hampshire cattle,	3,851
Vermont cattle,	3,331
Massachusetts cattle,	2,522
New York cattle,	674
Western cattle,	26,166
Sheep,	331,267
Calves,	48,342
Swine,	18,263
Cattle released on certificates,	1,747
Cattle tested,	32
Cattle released after test,	30
Cattle condemned after test,	2

At Somerville, in the year 1898, 799 cattle were released on certificates ; during 1899, 1,747, — showing an increase of 948 over the previous year.

Total Stock received at the Three Stations.

Cattle,	234,540
Sheep,	687,432
Swine,	1,623,690
Calves,	133,617
Released on certificates,	19,120
Tested at stations,	413
Released after test,	399
Condemned after test,	14

It will be seen by this report that there have not been as many cattle released on certificates of tuberculin test as last year. In 1898, 19,386 head were released on certificates, a large number of which were young store cattle, while this year there have been but a few of this class. There have been more milch cows than in any previous year, and the demand for these animals is constantly on the increase.

During the past year the Boston & Albany Railroad Company has built a large barn at the Brighton stock yards, which will accommodate 586 cattle, and are now preparing to enlarge it to a capacity of 1,000. The barn accommodations are a great benefit to the stock, as they are all under cover and tied up by themselves.

It is the desire of the Board that this market may be one where buyers may feel when purchasing milch cows that they are reasonably sure of obtaining animals that are healthy and free from tuberculosis. Last year letters were sent to many of the veterinarians who were testing cattle for this market, and from some of the answers received and information derived from other sources it was felt that the work of testing cattle might not be properly done; therefore, after the Legislature had made the necessary appropriation, an agent was employed to investigate this work and to ascertain how it was being conducted. Upon receiving his report the commission held and tested at various times 317 cattle belonging to different drovers, and found 5 of them tuberculous.

In regard to the admission of cattle from without the State, it is the opinion of this Board that the quarantine stations should be maintained with rules and regulations still

more stringent; otherwise this market would be flooded with tuberculous cattle from other States, for which the purchasers would soon after look to the Commonwealth for payment. While the Board does not feel that the work of testing out-of-the-State cattle is by any means perfect, yet it does feel that there has been a great improvement over the old methods of admitting all classes of cattle within the borders of the State. Many of the buyers affirm that they have had less trouble with their cattle during the last two or three years than ever before; therefore the Board believes it to be good judgment not to relax this work in the slightest degree.

Besides the cattle that have come into the State through the quarantine stations, 6,143 have been brought to other points, being tested with tuberculin prior to shipment or after arrival in this State. There have been 615 permits issued since Dec. 15, 1898.

The second portion of the work includes that coming under the general inspection made by the local inspectors. An order for an examination of the neat stock in the State and the premises on which they were kept was sent out in the following letter to inspectors, October 1:—

To the Inspectors of Animals.

The Board of Cattle Commissioners hereby directs that you shall make a general inspection of the neat stock in your town, and incidentally other farm animals, to commence at once, and to be completed on or before the fifteenth day of November.

The law under which you work is chapter 408 of the Acts of 1899, a copy of which will be sent you, together with the necessary papers for carrying it out. The portion contained in sections 19 to 32 relates especially to your duties, and you should make yourself familiar with it. You will also be provided with a book to carry out the provisions of section 23, with books to carry out the provisions of section 29, and a quarantine book for cases of tuberculosis or other contagious disease among animals.

Cattle are not to be quarantined as tuberculous unless they show enough evidence of disease to make it possible to condemn them on a physical examination, except where the udder of a milch cow is tuberculous; on no account are cattle to be quarantined simply for the purpose of testing them with tuberculin, when they show no physical signs of disease. The only exception to this rule is, that it is the duty of inspectors to quarantine all cattle

brought into the State without a permit from this Board, until the owner furnishes the Cattle Commission with satisfactory certificates of a tuberculin test. Before quarantining any cattle, you should decide upon what cows you are going to quarantine, then send the papers on a number at once, so our agent can see them all on one visit.

By order, AUSTIN PETERS, *Chairman*,
 L. F. HERRICK, *Secretary*,
 C. A. DENNEN,
 Massachusetts Board of Cattle Commissioners.

The following table shows the result of the work done by the inspectors in quarantining cattle. These have been examined by agents of the Board, and those that were found to be diseased have been killed, while those showing no evidence of disease were released.

A few animals were quarantined prior to ordering the general inspection, between June 1 and October 1, but most of those dealt with were quarantined after the 1st of October.

The animals which were killed as a result of this inspection were nearly all badly diseased, and were the ones most likely to be a source of danger to the public health and to other cattle. Most of them were condemned on physical examination.

Included among the number of animals quarantined and released in each place are those where herds were tested at the request of the owner, with the exception of one herd in Newton. These are mentioned again in the table under the head of voluntary request work.

The commission has instructed its agents this year to lay special stress upon the importance of disinfection wherever cows have been taken.

[illegible]

[illegible]

Result of Work done by Inspectors in quarantining Cattle—Continued.

CITY OR TOWN.	MASSACHUSETTS CATTLE.								CATTLE FROM OUT OF STATE.			
	Neat Cattle assessed.	Number quarantined.	Number released.	Number condemned, killed and paid for.	Number condemned and killed, no Award, not owned in State, Six Months.	Died in Quarantine, no Award.	Permit to kill, no Award.	Permit to kill, paid for.	Condemned, Warrants in Process of Settlement.	CONDEMNED.		
										Sent out of State.	Killed, no Award.	Killed and paid for.
Fitchburg,	655	22	2	16	—	—	—	—	2	—	—	—
Florida,	400	—	—	—	—	—	—	—	—	—	—	—
Foxborough,	456	1	1	—	—	—	—	—	—	—	—	—
Frammingham,	1,049	—	—	—	—	—	—	—	—	—	—	—
Franklin,	780	9	1	7	—	—	—	—	1	—	—	—
Freetown,	323	1	—	1	—	—	—	—	—	—	—	—
Gardner,	585	11	—	2	—	—	—	—	—	—	—	—
Gay Head,	53	—	—	—	—	—	—	—	—	—	—	—
Georgetown,	269	—	—	—	—	—	—	—	—	—	—	—
Gill,	675	10	5	3	—	—	—	—	2	—	—	—
Gloucester,	486	10	1	—	—	—	—	—	—	—	—	—
Goshen,	377	6	1	5	—	—	—	—	—	—	—	—
Gosnold,	45	—	—	—	—	—	—	—	—	—	—	—
Grafton,	1,141	19	3	12	—	—	—	—	4	—	—	—
Granby,	1,532	9	5	1	—	—	—	—	3	—	—	—
Granville,	766	—	—	—	—	—	—	—	—	—	—	—
Great Barrington,	1,516	—	—	—	—	—	—	—	—	—	—	—
Greenfield,	1,181	50	24	13	—	1	1	—	11	—	—	—

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Result of Work done by Inspectors in quarantining Cattle — Continued.

CITY OR TOWN.	MASSACHUSETTS CATTLE.								CATTLE FROM OUT OF STATE.			
	Neat Cattle assessed.	Number quarantined.	Number released.	Number condemned, killed and paid for.	Number condemned and killed, no Award, in State Six Months.	Died in Quarantine, no Award.	Permit to kill, no Award.	Permit to kill, paid for.	Condemned, Warrants in Process of Settlement.	CONDEMNED.		
										Sent out of State.	Killed, no Award.	Killed and paid for.
Ipswich,	900	2	1	1	1	1	1	1	2	1	1	1
Kingston,	254	1	1	1	1	1	1	1	1	1	1	1
Lakeville,	348	1	1	1	1	1	1	1	1	1	1	1
Lancaster,	616	6	3	3	1	1	1	1	1	1	1	1
Lanesborough,	988	1	1	1	1	1	1	1	1	1	1	1
Lawrence,	109	1	1	1	1	1	1	1	1	1	1	1
Lee,	801	88	14	3	3	1	1	1	1	1	1	1
Leicester,	621	2	1	2	1	1	1	1	1	1	1	1
Lenox,	621	3	3	1	1	1	1	1	1	1	1	1
Leominster,	889	13	3	7	1	1	1	1	1	1	1	1
Leverett,	525	1	1	1	1	1	1	1	1	1	1	1
Lexington,	1,299	2	1	2	1	1	1	1	16	1	1	1
Leyden,	556	35	13	3	3	1	3	1	1	1	1	1
Lincoln,	981	2	4	1	1	1	1	1	1	1	1	1
Littleton,	1,445	11	6	5	5	1	1	1	1	1	1	1
Longmeadow,	286	13	6	5	5	1	1	1	1	1	1	1
Lowell,	273	16	4	3	3	1	1	1	1	1	1	1
Ludlow,	1,003	8	2	5	5	1	1	1	1	1	1	1

North Brookfield,
 North Reading,
 Northampton,
 Northborough,
 Northbridge,
 Northfield,
 Norton,
 Norwell,
 Norwood,
 Oakham,
 Orange,
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 Otis,
 Oxford,
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 Paxton,
 Peabody,
 Pelham,
 Pembroke,
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Result of Work done by Inspectors in quarantining Cattle—Concluded.

CITY OR TOWN.	MASSACHUSETTS CATTLE.										CATTLE FROM OUT OF STATE.				
	Neat Cattle assessed.	Number quarantined.	Number released.	Number condemned, killed and paid for.	Number condemned and killed, no Award, not owned in State Six Months.	Died in Quarantine, no Award.	Permit to kill, no Award.	Permit to kill, paid for.	Condemned, Warrants in Process of Settlement.	CONDEMNED.				Released.	Died in Quarantine.
										Sent out of State.	Killed, no Award.	Killed and paid for.			
Wilmington,	291	17	2	12	—	—	—	1	2	—	—	—	—	1	—
Winchendon,	527	2	—	1	—	—	—	—	—	—	—	—	—	—	—
Winchester,	214	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Windsor,	825	3	2	1	—	—	—	—	—	—	—	—	—	—	—
Winthrop,	73	3	2	—	1	—	—	—	—	—	—	—	—	—	—
Woburn,	317	6	1	4	—	—	—	—	1	—	—	—	—	—	—
Worcester,	2,066	9	2	6	—	—	—	—	1	—	—	—	—	—	—
Worthington,	1,045	13	6	—	—	—	—	—	—	—	—	—	—	6	—
Wrentham,	597	3	—	1	—	—	—	—	—	—	—	—	—	1	—
Yarmouth,	157	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals,	229,860	2,424	978	792	2	18	31	10	*314	—	6	6	7	259	1

* This includes three animals held for re-test.

Section 29 of chapter 408 of the Acts of the year 1899 requires the inspectors, in addition to their inspection of animals for contagious diseases, to examine the barns, stables and other enclosures in which any cattle are kept, with reference to their situation, cleanliness, light, ventilation and water supply; to make a detailed report, with names and residences of owners, to the Board of Cattle Commissioners, which shall embody the same in its annual report to the Legislature.

In accordance with the above provision, the Board ordered the inspectors in the various cities and towns of the Commonwealth to make an examination of the different premises where neat cattle are kept, and to make their return on or before November 15. A large majority of the inspectors made a very careful inspection and report; but in some of the towns examination of many stables was omitted, and the inspectors in the following towns have sent in no returns of inspection of stables: —

Billerica.	Hudson.	North Adams.
Brookline.	Lawrence.	Petersham.
Canton.	Lowell.	Richmond.
Chelmsford.	Maynard.	Rockland.
Dracut.	Middlefield.	South Hadley.
Framingham.	Montgomery.	Waltham.
Gardner.	New Braintree.	Ware.
Haverhill.	Newbury.	

From the returns of the above inspection, sent to this office, the following table has been compiled: —

Inspection of Barns, Stables, etc., in which Cattle are kept.

	Number of Stables Inspected.	Number of Stables on the Ground.	Number of Stables over Cellars.	Number of Stables in Cellars.	Number of Stables with Good Light.	Number of Stables with Bad Light.	Number of Stables with no Light.	Number of Stables with Good Ventilation.	Number of Stables with Bad Ventilation.	Number of Stables with no Ventilation.	Number of Stables with Good Water Supply.	Number of Stables with Fair Water Supply.	Number of Stables with Bad Water Supply.	Number of Stables kept Clean.	Number of Stables kept Unclean.
Abington, .	127	43	79	5	125	2	-	125	2	-	120	7	-	123	4
Acton, .	135	19	115	1	111	24	-	134	1	-	104	4	27	124	11
Acushnet, .	124	18	103	3	80	44	-	110	14	-	114	4	6	109	15
Adams, .	57	31	18	8	21	28	8	40	14	3	52	5	-	48	9
Agawam, .	110	66	28	16	52	54	4	81	28	1	82	24	4	101	9
Alford, .	41	25	2	14	29	5	7	41	-	-	26	15	-	39	2
Amesbury, .	48	8	38	2	42	6	-	45	3	-	40	5	3	45	3
Amherst, .	146	69	66	11	64	62	20	115	19	12	94	26	26	119	27
Andover, .	104	14	89	1	59	41	4	99	5	-	88	13	3	98	6
Arlington, .	104	36	56	12	89	11	4	94	7	3	104	-	-	102	2
Ashburnham, .	138	61	67	10	78	58	2	126	12	-	137	-	1	103	35
Ashfield, .	133	65	68	-	71	35	27	133	-	-	44	66	23	90	43
Ashby, .	122	24	98	-	89	33	-	117	5	-	75	25	22	119	8
Ashland, .	87	17	69	1	45	41	1	69	17	1	75	11	1	75	12
Athol, .	79	35	39	5	43	30	6	61	18	-	67	12	-	44	35
Attleborough, .	143	32	110	1	133	6	4	130	7	6	126	10	7	142	1
Avon, .	11	6	5	-	8	3	-	9	2	-	10	1	-	10	1
Auburn, .	37	5	30	2	35	2	-	34	3	-	36	1	-	36	1
Ayer, .	33	1	-	32	25	5	3	28	5	-	30	-	3	31	2
Barnstable, .	290	131	115	44	179	82	29	239	42	9	158	128	4	248	42
Barre, .	76	13	63	-	65	6	5	74	2	-	70	4	2	71	5
Becket, .	107	11	15	81	57	19	31	106	1	-	103	4	-	98	9

Bedford,	75	11	24	40	51	24	—	74	1	—	64	11	—	68	7
Belchertown,	155	3	—	152	122	33	—	154	1	—	96	59	—	155	—
Bellingham,	118	30	85	3	47	61	10	74	42	2	81	36	1	80	38
Belmont,	22	4	4	14	17	5	—	15	7	—	22	—	—	22	—
Berkley,	67	3	61	3	60	5	2	67	—	—	66	—	1	67	—
Berlin,	89	26	59	4	64	19	6	89	—	—	84	5	—	87	2
Bernardston,	63	28	33	2	27	23	13	37	17	9	53	9	1	49	14
Beverly,	5	—	4	1	5	—	—	4	1	—	5	—	—	5	—
Billerica,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Blackstone,	21	1	20	—	20	1	—	21	—	—	12	9	—	21	—
Blandford,	173	117	27	29	80	51	42	165	8	—	173	—	—	162	11
Bolton,	72	10	62	—	69	3	—	65	7	—	67	5	—	68	4
Boston,	52	18	26	8	17	35	—	22	30	—	49	3	—	23	29
Bourne,	35	21	14	—	30	2	3	34	1	—	29	6	—	35	—
Boxborough,	53	3	50	—	39	2	12	48	5	—	48	—	5	43	10
Boxford,	79	22	57	—	46	25	8	62	14	3	59	17	3	70	9
Boylston,	76	—	—	76	68	5	3	72	—	4	65	8	3	72	4
Braintree,	84	35	45	4	60	19	5	73	8	3	76	5	—	67	17
Brewster,	89	56	24	9	73	16	—	79	10	—	89	—	—	77	12
Bridgewater,	128	23	93	12	54	62	12	58	70	—	99	29	—	106	22
Brimfield,	119	44	68	7	72	42	5	117	2	—	112	7	—	116	3
Brookton,	140	56	83	1	106	30	4	120	14	6	126	3	11	122	18
Brookfield,	154	66	81	7	89	31	34	107	37	10	140	14	—	110	44
Brookline,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Buckland,	129	44	71	14	125	3	1	117	10	2	121	8	—	119	10
Burlington,	54	—	54	—	49	5	—	49	5	—	54	—	—	54	—
Cambridge,	17	7	9	1	15	2	—	17	—	—	17	—	—	17	—
Canton,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carlisle,	76	21	55	—	60	16	—	58	18	—	74	2	—	57	19
Carver,	70	19	48	3	55	10	5	65	5	—	61	9	—	64	6
Charlmont,	93	—	—	93	54	33	6	91	2	—	86	7	—	90	3

Inspection of Barns, Stables, etc., in which Cattle are kept — Continued.

	Number of Stables Inspected.	Number of Stables on the Ground.	Number of Stables over Cellars.	Number of Stables in Cellars.	Number of Stables with Good Light.	Number of Stables with Bad Light.	Number of Stables with no Light.	Number of Stables with Good Ventilation.	Number of Stables with Bad Ventilation.	Number of Stables with no Ventilation.	Number of Stables with Good Water Supply.	Number of Stables with Fair Water Supply.	Number of Stables with Bad Water Supply.	Number of Stables kept Clean.	Number of Stables kept Unclean.
Charlton, .	200	118	73	9	187	7	6	191	4	5	195	5	—	196	4
Chatham, .	94	18	67	9	46	16	32	77	11	6	82	7	5	71	23
Chelmsford, .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chelsea, .	20	15	5	—	18	2	—	19	1	—	18	2	—	20	—
Cheshire, .	77	53	13	11	34	19	24	58	13	6	74	3	—	71	6
Chester, .	100	1	—	99	64	36	—	89	11	—	78	22	—	93	7
Chesterfield, .	148	70	33	45	80	47	21	139	9	—	118	29	1	132	16
Chicopee, .	77	20	11	46	57	20	—	69	8	—	77	—	—	69	8
Chilmark, .	52	17	35	—	27	25	—	52	—	—	49	3	—	50	2
Clarksburg, .	81	41	22	18	33	41	7	63	15	3	76	5	—	62	19
Clinton, .	12	5	7	—	12	—	—	12	—	—	12	2	—	12	—
Cohasset, .	123	71	52	—	80	43	—	120	2	1	121	—	—	115	8
Colrain, .	194	113	73	8	151	36	7	190	4	—	190	4	—	190	4
Concord, .	110	10	98	2	82	27	1	99	11	—	90	10	10	102	8
Conway, .	88	37	35	16	82	6	—	85	3	—	82	6	—	88	—
Cottage City, .	43	21	22	—	23	16	4	43	—	—	29	4	10	40	3
Cummington, .	97	29	46	22	72	8	17	92	3	2	95	2	—	94	3
Dalton, .	76	7	2	67	60	16	—	66	10	—	75	1	—	76	—
Dana, .	51	28	20	3	46	5	—	47	4	—	41	10	—	49	2
Danvers, .	65	10	54	1	61	3	1	61	3	1	63	1	1	63	2
Dartmouth, .	226	30	59	137	162	54	10	206	16	4	139	87	—	208	18
Dedham, .	31	11	18	2	29	2	—	24	7	—	27	3	1	27	4

Deerfield,	66	41	18	7	31	22	13	61	5	-	53	9	4	58	8
Dennis,	105	68	34	3	67	27	11	66	35	4	99	6	-	92	13
Dighton,	111	31	76	4	106	4	1	111	-	-	93	16	2	110	1
Douglas,	105	23	78	4	95	10	1	103	2	-	100	5	3	100	5
Dover,	77	15	56	6	51	25	1	65	12	-	61	13	3	62	15
Dracut,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dudley,	95	22	66	7	58	27	10	80	7	8	81	7	7	79	16
Dunstable,	71	4	-	67	37	27	7	60	7	4	53	16	2	55	16
Duxbury,	124	50	64	10	85	30	9	117	6	1	120	4	-	105	19
East Bridgewater,	176	67	103	6	149	15	12	176	-	-	169	7	-	167	9
East Longmeadow,	109	-	-	109	62	31	16	100	9	-	88	21	-	93	16
Eastham,	66	45	19	2	62	1	3	64	2	-	65	1	-	65	1
Easthampton,	142	104	13	25	117	21	4	142	-	-	98	42	2	134	8
Easton,	181	62	111	8	105	66	10	167	12	2	170	10	1	169	12
Edgartown,	67	41	26	-	11	18	38	60	6	1	63	4	-	60	7
Egremont,	93	59	-	34	61	19	13	80	13	-	65	28	-	92	1
Enfield,	88	3	2	83	77	7	4	87	1	-	71	11	6	86	2
Erving,	36	3	28	5	33	3	-	35	1	-	30	3	3	35	1
Essex,	77	42	33	2	66	11	-	74	3	-	48	26	3	74	3
Everett,	17	8	8	1	14	1	2	15	1	1	15	2	-	15	2
Fairhaven,	107	43	64	-	62	35	10	82	25	-	90	11	6	92	15
Fall River,	119	58	30	31	111	2	6	108	6	5	119	-	-	113	6
Falmouth,	153	57	54	42	84	42	27	119	13	21	64	81	8	140	13
Fitchburg,	135	47	80	8	65	52	18	83	37	15	109	15	11	78	57
Florida,	59	32	9	18	55	-	4	59	-	-	59	-	-	59	-
Foxborough,	141	37	97	7	81	47	13	129	12	-	116	25	-	126	15
Framingham,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Franklin,	141	38	98	5	105	36	-	125	13	3	120	13	8	139	2
Freetown,	123	31	81	11	56	32	35	89	34	-	121	2	-	118	5
Gardner,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gay Head,	21	15	2	4	16	-	5	21	-	-	21	-	-	21	-

Inspection of Barns, Stables, etc., in which Cattle are kept — Continued.

	Number of Stables inspected.	Number of Stables on the Ground.	Number of Stables over Cellars.	Number of Stables in Cellars.	Number of Stables with Good Light.	Number of Stables with Bad Light.	Number of Stables with no Light.	Number of Stables with Good Ventilation.	Number of Stables with Bad Ventilation.	Number of Stables with Fair Water Supply.	Number of Stables with Bad Water Supply.	Number of Stables kept Clean.	Number of Stables kept Unclean.
Georgetown, . . .	87	39	43	5	65	18	4	84	3	87	—	86	1
Gill, . . .	63	31	22	10	30	23	10	59	4	62	—	59	4
Gloucester, . . .	139	90	42	7	100	36	3	133	6	139	—	139	—
Goshen, . . .	50	18	25	7	24	14	2	47	3	50	—	49	1
Gosnold, . . .	10	7	3	—	10	—	—	9	1	10	—	10	1
Grafton, . . .	79	5	66	8	59	19	1	60	19	72	—	52	—
Granby, . . .	129	17	112	—	122	4	3	125	4	120	—	123	6
Granville, . . .	117	10	104	3	61	50	6	115	2	111	—	111	6
Great Barrington, . . .	103	41	5	57	49	48	6	61	40	100	—	69	34
Greenfield, . . .	55	24	27	4	32	19	4	49	6	54	—	48	7
Greenwich, . . .	76	38	36	2	70	—	6	76	—	76	—	76	—
Groton, . . .	142	14	74	54	87	50	5	94	—	112	—	98	53
Groveland, . . .	64	22	40	2	51	7	6	62	2	62	—	61	3
Hadley, . . .	299	213	57	29	158	64	77	267	32	221	—	265	34
Halifax, . . .	62	43	17	2	29	33	—	61	1	59	—	59	3
Hamilton, . . .	62	23	35	4	50	12	—	58	4	50	—	58	4
Hampden, . . .	90	53	32	5	84	6	—	89	1	80	—	85	5
Hancock, . . .	57	56	1	—	38	19	—	57	—	6	—	56	—
Hanover, . . .	126	42	79	5	117	9	—	124	2	123	—	119	7
Hanson, . . .	99	25	68	6	92	7	—	98	1	88	—	96	3
Hardwick, . . .	128	42	79	7	77	31	20	99	23	16	—	88	40
Harvard, . . .	130	18	108	4	110	12	8	114	8	115	—	108	22

Harwich, .	138	14	112	12	103	85	—	138	—	131	7	—	132	6
Hatfield, .	148	139	6	3	135	13	—	146	—	140	6	—	148	—
Haverhill, .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hawley, .	104	40	46	18	89	15	—	102	2	92	8	4	100	4
Heath, .	88	17	23	48	76	10	2	83	2	87	1	—	82	6
Hingham, .	189	66	104	19	175	12	2	187	2	170	19	—	187	2
Hinsdale, .	78	26	12	40	41	31	6	75	3	51	27	—	78	—
Holbrook, .	84	1	76	7	73	8	3	84	—	68	16	—	80	4
Holden, .	88	—	—	88	87	1	—	56	32	71	17	—	85	3
Holland, .	33	—	—	33	14	12	7	32	1	24	9	—	33	—
Holliston, .	106	21	83	2	101	5	—	101	5	86	20	—	95	—
Holyoke, .	50	15	19	16	48	2	—	46	4	48	—	2	47	—
Hopedale, .	30	3	24	3	27	3	—	30	—	30	—	—	30	—
Hopkinton, .	138	24	112	2	111	27	—	105	10	120	10	8	113	25
Hubbardston, .	46	10	35	1	45	1	—	45	23	41	5	—	45	1
Hudson, .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hull, .	19	7	9	3	18	1	—	18	1	19	—	—	18	—
Huntington, .	110	3	—	107	80	19	11	110	—	105	4	1	107	3
Hyde Park, .	18	—	—	18	17	1	—	11	7	16	2	—	12	6
Ipswich, .	148	78	67	3	126	22	—	144	4	140	8	—	146	2
Kingston, .	80	2	—	78	58	14	8	77	3	61	19	—	75	5
Lakeville, .	16	5	11	—	14	—	2	16	—	12	4	—	16	—
Lancaster, .	99	39	9	51	77	17	5	84	13	94	5	—	92	7
Lanesborough, .	112	93	10	9	91	19	2	112	—	109	3	—	110	2
Lawrence, .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lee, .	185	120	18	47	149	31	5	147	38	113	72	—	167	18
Leicester, .	83	19	55	9	71	8	4	76	7	79	4	—	76	7
Lenox, .	51	17	5	29	38	13	—	44	7	39	12	—	47	4
Leominster, .	67	8	58	1	28	39	—	56	11	61	6	—	37	30
Leverett, .	103	50	47	6	66	30	7	100	3	101	2	—	89	14
Lexington, .	60	—	56	4	52	8	—	55	5	55	5	—	51	9

Inspection of Barns, Stables, etc., in which Cattle are kept—Continued.

	Number of Stables Inspected.	Number of Stables on the Ground.	Number of Stables over Cellars.	Number of Stables in Cellars.	Number of Stables with Good Light.	Number of Stables with Bad Light.	Number of Stables with no Light.	Number of Stables with Good Ventilation.	Number of Stables with Bad Ventilation.	Number of Stables with no Ventilation.	Number of Stables with Good Water Supply.	Number of Stables with Fair Water Supply.	Number of Stables with Bad Water Supply.	Number of Stables kept Clean.	Number of Stables kept Unclean.
Leyden,	67	13	40	14	53	9	5	64	3	—	67	—	—	66	1
Lincoln,	99	19	75	5	54	44	1	51	48	—	92	—	7	64	35
Littleton,	90	3	83	4	86	4	—	81	4	—	81	8	1	88	2
Longmeadow,	53	38	11	4	42	2	9	44	1	8	51	2	—	53	—
Lowell,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ludlow,	129	74	48	7	77	40	12	93	29	7	119	10	—	104	25
Lunenburg,	132	27	103	2	97	20	15	125	7	—	120	10	2	125*	7
Lynn,	112	62	41	9	68	39	5	108	3	1	104	8	—	111	1
Lynnfield,	30	7	23	—	29	1	—	30	—	—	30	—	—	28	2
Malden,	12	10	1	1	5	7	—	7	5	—	12	—	—	10	2
Manchester,	29	2	23	4	28	1	—	29	—	—	29	—	—	29	—
Mansfield,	83	2	6	75	55	20	8	67	16	—	68	10	—	70	13
Marblehead,	56	29	25	2	51	5	—	54	2	—	52	4	—	54	2
Marion,	29	9	20	—	20	8	1	28	1	—	22	7	—	24	5
Marlborough,	117	20	38	59	105	12	—	111	6	—	116	1	—	113	4
Marshfield,	188	58	71	9	71	60	7	131	3	4	125	13	—	129	9
Mashpee,	17	3	14	—	12	5	—	16	1	—	17	—	—	17	—
Matapoisett,	88	18	70	—	65	19	4	84	4	—	40	47	1	78	10
Maynard,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medfield,	67	17	40	10	66	1	—	65	2	—	60	7	—	58	9
Medford,	65	—	6	59	52	13	—	60	5	—	61	3	1	61	4
Medway,	56	9	45	2	47	9	—	41	15	—	49	7	—	45	11

[illegible]

Inspection of Barns, Stables, etc., in which Cattle are kept — Continued.

	Number of Stables Inspected.	Number of Stables on the Ground.	Number of Stables over Cellars.	Number of Stables in Cellars.	Number of Stables with Good Light.	Number of Stables with Bad Light.	Number of Stables with no Light.	Number of Stables with Good Ventilation.	Number of Stables with Bad Ventilation.	Number of Stables with no Ventilation.	Number of Stables with Good Water Supply.	Number of Stables with Fair Water Supply.	Number of Stables with Bad Water Supply.	Number of Stables kept Clean.	Number of Stables kept Unclean.
North Andover,	72	5	67	1	68	4	1	72	1	1	68	4	1	72	1
North Attleborough,	96	28	62	6	90	3	3	74	20	4	72	21	3	89	7
North Brookfield,	162	50	101	11	128	34	1	158	4	1	143	19	1	155	7
North Reading,	58	19	36	3	51	4	3	53	4	1	55	3	1	54	4
Northampton,	34	22	1	11	14	20	1	22	12	1	33	1	1	30	4
Northborough,	100	18	80	2	96	3	1	89	8	3	92	8	1	99	1
Northbridge,	50	18	30	2	42	8	1	49	1	1	42	8	1	47	3
Northfield,	119	87	30	2	96	20	3	112	3	4	106	13	2	113	6
Norton,	141	48	86	7	115	16	10	141	15	1	137	2	2	140	1
Norwell,	117	49	68	7	85	10	22	102	15	1	111	6	1	98	19
Norwood,	33	9	22	2	27	5	1	32	1	1	33	1	1	31	2
Oakham,	63	24	36	3	53	10	1	60	3	1	40	20	3	61	2
Orange,	198	64	116	18	110	66	22	160	30	8	193	3	2	159	39
Orleans,	47	37	1	9	47	42	1	44	3	1	25	22	1	46	1
Otis,	102	34	55	13	52	42	8	102	1	1	63	39	1	102	1
Oxford,	49	8	40	1	41	6	2	47	2	1	44	5	1	48	1
Palmer,	83	31	39	13	56	15	12	78	5	2	64	19	1	83	1
Paxton,	54	20	30	4	29	23	2	47	5	2	48	6	1	47	7
Peabody,	53	12	39	2	48	5	1	45	5	3	47	6	1	50	3
Pelham,	74	45	18	11	40	8	26	68	1	5	57	16	1	64	10
Pembroke,	96	31	61	4	90	6	1	91	5	1	92	4	4	92	4
Pepperell,	174	34	133	7	136	31	7	169	5	1	161	9	4	109	65

Peru,	52	24	6	22	43	7	2	52	—	—	—	47	5	—	52	—
Petersham,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Phillipston,	70	32	38	12	61	9	—	52	10	8	—	50	10	10	59	11
Pittsfield,	62	47	3	36	36	20	—	37	23	2	—	43	17	2	45	17
Plainfield,	71	29	36	6	40	26	—	55	14	2	—	59	12	—	58	13
Plymouth,	136	60	69	7	110	20	—	129	5	2	—	131	5	—	128	8
Plympton,	58	28	25	5	34	16	—	48	9	1	—	49	9	—	53	5
Prescott,	67	34	32	1	31	28	—	62	5	—	—	57	10	—	60	7
Princeton,	69	13	52	4	50	19	—	69	—	—	—	63	6	—	63	6
Provincetown,	14	—	14	—	12	2	—	12	2	—	—	6	8	—	14	—
Quincy,	71	26	39	6	65	5	—	66	4	1	—	68	3	—	67	—
Randolph,	89	32	49	8	44	39	—	83	6	—	—	84	5	—	84	4
Raynham,	28	22	4	2	15	13	—	23	4	1	—	24	4	—	18	5
Reading,	53	25	25	3	51	2	—	53	—	—	—	50	3	—	53	10
Rehoboth,	250	83	156	11	248	1	—	245	5	—	—	236	14	—	247	—
Revere,	23	12	9	2	23	—	—	23	—	—	—	23	—	—	23	—
Richmond,	—	—	—	—	—	—	—	—	73	—	—	—	—	—	—	—
Rochester,	73	27	46	—	40	24	—	—	—	—	—	42	31	—	71	2
Rockland,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rockport,	59	42	12	5	49	7	—	54	5	—	—	51	8	—	56	3
Rowe,	66	54	10	2	64	2	—	61	5	—	—	64	2	—	63	3
Rowley,	63	33	30	—	52	11	—	60	3	—	—	54	9	—	60	3
Royalston,	—	—	—	—	33	—	—	33	—	—	—	30	3	—	33	—
Russell,	34	24	6	4	18	16	—	33	—	—	—	30	4	—	33	1
Rutland,	158	33	120	5	146	12	—	153	3	—	—	150	8	—	154	4
Salem,	11	2	9	—	5	6	—	9	2	2	—	11	9	—	9	2
Salisbury,	35	16	16	3	23	9	—	21	11	3	—	27	8	—	28	7
Sandisfield,	118	92	5	21	103	12	—	111	7	—	—	112	6	—	115	3
Sandwich,	92	9	81	2	87	5	—	89	3	—	—	86	6	—	90	2
Saugus,	66	26	37	3	50	10	—	64	2	—	—	63	3	—	64	2
Savoy,	102	87	10	5	42	50	—	96	6	—	—	95	5	—	97	5

Inspection of Barns, Stables, etc., in which Cattle are kept — Continued.

	Number of Stables Inspected.	Number of Stables on the Ground.	Number of Stables over Cellars.	Number of Stables in Cellars.	Number of Stables with Good Light.	Number of Stables with Bad Light.	Number of Stables with no Light.	Number of Stables with Good Ventilation.	Number of Stables with Bad Ventilation.	Number of Stables with no Ventilation.	Number of Stables with Good Water Supply.	Number of Stables with Fair Water Supply.	Number of Stables with Bad Water Supply.	Number of Stables kept Clean.	Number of Stables kept Unclean.
Situate, . . .	146	45	94	7	81	38	27	110	33	30	124	14	8	120	26
Seekonk, . . .	131	50	78	3	92	35	4	118	10	3	120	10	1	125	6
Sharon, . . .	74	20	44	10	66	4	4	72	2	—	71	3	—	68	6
Shelfield, . . .	230	19	191	20	110	60	60	206	24	—	216	9	5	215	15
Shelburne, . . .	105	25	57	23	102	3	—	103	2	—	100	4	1	104	1
Sherborn, . . .	95	18	65	12	81	14	—	89	4	2	80	9	6	92	3
Shirley, . . .	65	15	49	1	57	3	5	53	10	2	60	4	1	51	14
Shrewsbury, . . .	131	28	97	6	122	7	2	94	35	2	124	5	2	121	10
Shutesbury, . . .	52	24	28	—	40	4	8	47	5	—	45	7	—	52	—
Somerset, . . .	64	20	41	3	57	7	—	64	—	—	61	3	—	62	2
Somerville, . . .	69	25	32	12	52	17	—	50	19	—	67	2	—	64	5
South Hadley, . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Southampton, . . .	147	25	116	6	95	45	7	145	2	—	140	5	2	145	2
Southborough, . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Southbridge, . . .	93	39	51	3	68	25	—	61	22	10	87	6	—	78	15
Southwick, . . .	152	23	115	14	84	60	8	113	37	2	145	7	—	145	7
Spencer, . . .	136	39	90	7	119	15	2	125	11	—	127	9	—	131	5
Springfield, . . .	41	25	3	13	29	8	4	30	11	—	40	1	—	38	3
Sterling, . . .	159	36	116	7	130	25	4	158	1	—	145	7	7	158	1
Stockbridge, . . .	110	50	20	40	78	13	19	106	4	—	82	28	—	98	12
Stoneham, . . .	46	16	26	4	31	12	3	36	7	3	41	5	—	38	8
Stoughton, . . .	63	7	49	7	51	12	—	44	19	—	60	3	—	50	13

Stow,	82	13	67	2	76	6	—	72	6	4	75	5	2	80
Sturbridge,	74	28	46	—	68	5	1	73	1	—	71	3	—	70
Sudbury,	92	25	66	1	77	11	4	92	—	—	84	6	2	90
Sunderland,	97	58	36	3	78	17	2	94	3	—	91	5	1	95
Sutton,	180	65	109	6	108	51	21	173	7	—	153	27	—	138
Swampscott,	26	12	11	3	25	1	—	23	3	—	22	4	—	23
Swansey,	117	48	68	1	92	21	4	104	10	3	102	12	3	111
Taunton,	65	9	47	9	40	25	—	56	9	—	59	6	—	50
Templeton,	68	31	37	—	59	15	4	54	10	4	63	5	—	51
Tewksbury,	74	10	61	3	40	24	—	66	6	2	69	5	—	67
Tisbury,	21	9	12	—	21	—	—	21	—	—	20	5	—	7
Tolland,	56	41	11	4	25	25	6	48	8	—	53	3	—	19
Topsfield,	64	24	40	—	42	18	4	56	6	2	58	15	—	52
Townsend,	135	38	92	5	115	19	1	117	18	—	105	30	—	58
Truro,	75	49	12	14	66	7	2	73	2	—	70	5	—	116
Tyngsborough,	36	10	23	3	32	2	2	34	2	—	36	—	—	73
Tyringham,	54	28	25	1	46	4	4	54	—	—	49	5	—	32
Upton,	114	19	92	3	100	12	2	101	11	2	103	11	—	54
Uxbridge,	164	26	127	11	123	27	14	146	9	9	126	37	1	109
Wakefield,	74	25	46	3	70	4	—	68	6	—	72	2	—	74
Wales,	65	27	33	5	38	18	9	63	2	—	39	25	1	65
Walpole,	128	35	91	2	117	11	—	120	6	2	120	7	1	122
Waltham,	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ware,	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wareham,	97	46	50	1	64	20	13	76	17	4	53	40	4	84
Warren,	154	55	79	20	67	78	9	97	57	—	153	1	—	118
Warwick,	80	50	28	2	59	21	—	75	3	2	78	2	—	76
Washington,	71	30	33	8	65	5	1	69	2	—	65	6	—	67
Watertown,	15	10	4	1	10	4	1	13	2	—	15	4	—	15
Wayland,	86	17	68	1	80	6	—	81	5	—	71	15	—	85
Webster,	51	20	28	3	46	5	—	42	9	—	49	2	—	49

Inspection of Barns, Stables, etc., in which Cattle are kept — Concluded.

	Number of Stables Inspected.	Number of Stables on the Ground.	Number of Stables over Cellars.	Number of Stables in Cellars.	Number of Stables with Good Light.	Number of Stables with Bad Light.	Number of Stables with no Light.	Number of Stables with Good Ventilation.	Number of Stables with Bad Ventilation.	Number of Stables with no Ventilation.	Number of Stables with Good Water Supply.	Number of Stables with Fair Water Supply.	Number of Stables with Bad Water Supply.	Number of Stables kept Clean.	Number of Stables kept Unclean.
Wellesley, .	11	1	10	—	8	3	—	7	4	—	11	—	—	10	1
Wellfleet, .	48	31	4	13	37	7	4	44	4	—	26	11	11	46	2
Wendell, .	62	31	29	2	59	1	2	62	—	—	58	4	—	61	1
Wenham, .	44	8	35	1	32	12	—	35	9	—	41	3	—	42	2
West Boylston, .	76	8	68	—	69	6	1	76	—	—	57	18	1	67	9
West Bridgewater, .	48	9	33	6	31	17	—	41	7	—	48	—	—	46	2
West Brookfield, .	96	41	51	4	81	15	—	75	17	4	75	15	6	84	12
West Newbury, .	21	10	11	—	20	1	—	21	—	—	12	8	—	21	—
West Springfield, .	119	75	21	23	116	3	—	117	2	—	96	23	—	119	—
West Stockbridge, .	131	95	2	34	105	25	1	130	1	—	59	72	—	131	—
West Tisbury, .	61	37	23	1	61	—	—	61	—	—	48	13	—	61	—
Westborough, .	9	—	9	—	6	3	—	9	—	—	9	—	—	9	—
Westfield, .	236	185	19	32	112	56	68	142	93	1	234	—	—	188	48
Westford, .	129	31	98	—	106	23	—	126	3	—	86	43	—	109	20
Westhampton, .	86	32	39	15	62	24	—	63	23	—	72	10	4	74	12
Westminster, .	97	43	49	5	66	31	—	88	9	—	78	17	2	96	1
Weston, .	140	21	102	17	128	12	—	113	25	—	130	6	4	123	17
Westport, .	320	98	211	11	225	89	6	299	16	5	306	12	2	309	11
Westwood, .	54	9	43	2	42	12	—	51	3	—	50	4	—	51	3
Weymouth, .	209	113	72	24	157	49	3	186	21	2	179	28	2	192	17
Whately, .	112	86	15	11	78	34	—	110	2	—	92	13	7	106	6
Whitman, .	82	28	45	9	50	30	2	61	20	1	78	4	—	63	19

Wilbraham, . . .	165	61	94	10	120	41	4	161	4	-	151	9	5	150	15
Williamsburg, . .	92	46	31	15	72	17	3	69	15	8	80	12	-	77	15
Williamstown, . .	191	134	30	27	159	30	2	188	3	-	180	11	-	183	8
Wilmington, . . .	99	42	54	3	86	13	-	95	4	-	96	3	-	96	3
Winchendon, . . .	168	97	62	9	143	24	1	152	16	-	149	17	2	149	19
Winchester, . . .	18	6	8	4	12	4	2	14	3	1	13	5	-	14	4
Windsor,	111	68	10	33	70	20	21	100	6	5	88	23	-	108	3
Winthrop,	25	-	-	25	22	3	-	24	1	-	25	-	-	25	-
Woburn,	90	-	90	-	78	12	-	77	13	-	86	4	-	90	-
Worcester,	315	47	224	44	129	183	3	132	183	-	296	16	3	160	155
Worthington, . . .	124	61	27	36	109	8	7	119	5	-	110	14	-	121	3
Wrentham,	143	32	109	2	57	76	10	100	40	3	120	23	-	70	73
Yarmouth,	77	38	22	17	33	38	6	74	3	-	64	13	-	75	2
Totals,	30,013	10,685	15,211	4,117	21,968	6,345	1,700	26,541	3,064	408	26,231	3,269	513	27,077	2,936

Summary of Above Inspection.

Number of stables inspected,	30,013
Number of stables on the ground,	10,685
Number of stables over cellars,	15,211
Number of stables in cellars,	4,117
Number of stables with good light,	21,968
Number of stables with bad light,	6,345
Number of stables with no light,	1,700
Number of stables with good ventilation,	26,541
Number of stables with bad ventilation,	3,064
Number of stables with no ventilation,	408
Number of stables with good water supply,	26,231
Number of stables with fair water supply,	3,269
Number of stables with bad water supply,	513
Number of stables kept clean,	27,077
Number of stables kept unclean,	2,936

The inspections of previous years have certainly had a beneficial result, as reports come from inspectors all over the State that they find the condition of the neat stock much more satisfactory than in previous years, and they are unanimous in stating that it is, in their opinion, the result of the examinations made in former years. A few sample letters will serve to illustrate this feeling : —

BRIDGEWATER, MASS., Dec. 4, 1899.

To the Honorable Board of Cattle Commissioners.

I have the pleasure of reporting, as inspector of animals for the town of Bridgewater, that, after viewing 128 premises, I have seen 601 animals and found only 1 to quarantine. I have 2 under observation, and they are single,—that is, not with others; I may quarantine them later. There are also over 100 head at the State Farm in a wooden stable. No stock except that raised on the farm has been added since the Board examined the whole stock.

Although I have said in many cases, in answer to the question “No improvements,” the general tone of care for and interest in stock which has been tested is on the increase in our town, and the marked improvement in stock and care for same is much better. The moral effect of a cattle inspector I find is good, and

lasting from year to year. I think that my town and district will make a good showing as to freedom from tuberculosis or other contagious disease.

Respectfully,

CALVIN PRATT,
Inspector.

PEPPERELL, MASS., Nov. 18, 1899.

DR. AUSTIN PETERS, *Chairman of the Cattle Commission.*

DEAR SIR:—I send you in another cover my report of the inspection for this year, and wish to say I never saw the cattle in this town looking so well and in so healthy a condition as they are now. There has been a steady improvement in the condition of the stables, as well as the health of the animals, each year since the inspection began. The farmers and cattle owners are trying to carry out the rules and regulations laid down by your Board.

The first year of the inspection, when the State paid only for such animals as were killed and found healthy, there were 46 put in quarantine, and all of them were condemned and killed by the Cattle Commission, and all were found diseased but 1, for which the State paid \$12. This year, after six or seven years' experience, only 4 suspicious cattle were quarantined. One of them was released on physical examination, 1 was released on the tuberculin test, and 2 were killed and found diseased and were paid for by the State at \$10 and \$18. We think there has been a great improvement in six years.

Yours respectfully,

S. P. BANCROFT.

NORTH BROOKFIELD, MASS., Nov. 14, 1899.

To the Honorable State Board of Cattle Commissioners.

DEAR SIR:—I have this day finished the general inspection of cattle, sheep and swine in my territory. I have quarantined only 4 cows out of over 800 cattle. I find considerable improvement in the cleanliness of the barns and stables and the facility for watering stock, and the water given is much improved since my last inspection.

I send you this day the returns of inspection, hoping my work for the last four years may meet with your approval.

I am your obedient servant,

B. F. BARNES,
Inspector.

SUNDERLAND, MASS., Nov. 16, 1899.

State Board of Cattle Commissioners.

GENTLEMEN:—I enclose the final reports of inspections of animals and barns. I have found no more cases of animals that could be condemned as tuberculous on physical examination.

The present condition of live stock shows good results of work done in previous years. Hope the next appropriation will be sufficient to test and dispose of suspicious cases.

Yours very truly,

GEO. P. SMITH,

Inspector.

The cleaning up of herds has been done to a very limited extent, and only under the following conditions: the State furnishes tuberculin and an agent to test the cattle, and pays for reacting animals that are unfit for food, on condition that the owner will take the beef value from the butcher for those that are fit for food, and will thoroughly disinfect his premises at his own expense under rules laid down by the Board, and will buy only healthy cattle to take the place of the diseased ones. These requirements bring part of the burden on the owner, and, if he is not sincere in his desire to eradicate tuberculosis from his herd and willing to co-operate with the Cattle Commission, he will not agree to them. It is useless to attempt to eradicate tuberculosis from a herd without the co-operation of the owner, and it is better to wait until the farmer is ready to come to the commission and ask its assistance than to force its services upon him.

Herds have been tested in the following places and results obtained as below:—

DATE.	Name.	Town.	No. tested.	No. released.	No. condemned and paid for.	Disposed of by Owner.
June 27,	S. C.,	Westwood, .	22	22	—	—
Dec. 20,	S. C., second test, .	Westwood, .	40	38	2*	—
Aug. 24,	F. L. W.,	Dalton, .	14	6	4	2
Oct. 27,	F. L. W., second test,	Dalton, .	15	13	2†	—
Oct. 23,	P. W. M.,	Shrewsbury,	45	39	4	2
Nov. 6,	P. W. M.,	Shrewsbury,	11	2	5	4
Nov. 24,	Institution,	Waltham, .	28	23	2	3
Nov. 24,	C. W. S.,	Leyden, .	20	6	12	2
Dec. 15,	G. H. E.,	Weston, .	63	62	—	1
Dec. 20,	G. H. E.,	Concord, .	102	101	—	1
Dec. 26,	G. H. E.,	Newton, .	154	151‡	—	3
Dec. 15,	W. H. R.,	Montague, .	29	8	21	—
Dec. 28,	L. L. F.,	Greenfield, .	11	6	5	—
Sept. 25,	D. Brothers,	Amherst, .	11	3	6	2
			565	480	63	20

* These two animals were new acquisitions to the herd after June 27.

† These two reacted the first test, but were not killed until retested, October 27.

‡ Three to be retested.

A word of explanation is necessary in regard to the herds of S. C. and G. H. E.

G. H. E. has been trying to eradicate tuberculosis from his herd for some time, and in the past he has had the assistance of the commission. In 1898, the appropriation being insufficient, he tested his cattle at his own expense, and killed those that reacted to the tuberculin test. Of the 5 animals in his three herds which reacted this winter, only 2 were in the old herd, 1 at Weston and 1 at Concord. The 3 in the herd at Newton which reacted were animals which he had recently bought on certificates of tuberculin test at Brighton of dealers; it is a question whether these cows were honestly tested before he bought them, or not.

S. C. tested his herd at his own expense in December, 1898, and killed 7 animals. The commission tested the herd for him in June, after receiving the appropriation, and found no reacting animals; it again tested the herd for him Dec. 20, 1899, and but 2 animals reacted. These were cows which he had taken to board for the winter, which had been tested with tuberculin, but some time ago, and had probably acquired the disease after being tested and before S. C. introduced them into his herd.

Prior to May 25 the commission received the slaughter house returns from the inspectors of animals; but the act passed at that time placed this work in the charge of the local boards of health, and since then they have been expected to take care of the inspection of slaughter houses and of animals killed for food at the time of slaughter.

Inspected at Licensed Slaughter Houses at Time of Slaughter, for Six Months ending May 31, 1899.

Cattle (including calves),	39,254	
Sheep,	122,581	
Swine,	737,049	
Total,	—	898,884

Inspected at Time of Slaughter, under Section 21, Chapter 491, Acts of 1894, for Six Months ending May 31, 1899.

Cattle (including calves),	695	
Sheep,	24	
Swine,	2,122	
Total,	—	2,841

Total reported inspections at time of slaughter, 901,725

Animals destroyed as Tuberculous.

Cattle,	89
Sheep,	-
Swine,	30
Number of towns reporting licensed slaughter houses,	71
Number of licensed slaughter houses reported,	172

In addition to the cases of tuberculosis that the commission has dealt with in the regular way, 50 cases have been reported by different persons since the inspection of slaughtered animals was placed in the charge of the boards of health. These have been found in the slaughter houses, or have been killed with the owners' consent (they waiving their right to compensation from the State), or have been reported by renderers.

Bovine tuberculosis requires to be looked upon from two different stand-points: one, the possible danger to human life and health from the use of the flesh and dairy products of animals with a disease analogous to, if not identical with, tuberculosis in mankind; the other, as a troublesome, infectious disease of cattle, causing large annual losses to our farmers and breeders by the deaths or diminution in value of the neat stock, as well as the shrinkage in their products, making them a less source of profit to their owners than healthy cattle.

The problem of the management of bovine tuberculosis is attracting the attention of all civilized nationalities at the present time, especially in those localities where cattle are kept in a state of close cohabitation, for the purpose of utilizing their dairy products by the sale of milk or the manufacture of butter and cheese. The question is not of such vital importance in beef-producing communities, where the cattle are less closely confined and range over large areas of territory, as here it is not propagated so readily or rapidly, and hence is a source of less danger and loss; that is, the close confinement and sanitary (or rather unsanitary) surroundings under which dairy cattle and young animals being bred for the dairy are kept renders them peculiarly susceptible to the ravages of this scourge; in addition to this, lactation is a constant source of depletion to vitality in the milch cow.

At the Seventh International Congress of Veterinary Sur-

geons, held in Baden-Baden, Aug. 7 to 12, 1899, to which the chairman of this Board was a delegate, although he was unable to attend, and at which Dr. Frothingham, who does the bacteriological work of this Board, was present, a number of papers were presented by the leading veterinary officials of many of the European countries upon the control of bovine tuberculosis. All are agreed upon the importance of the work and the necessity of taking measures for the suppression of this disease, because of its possible danger to the public health, as well as on account of the losses it imposes upon cattle owners. It is also generally conceded that, because of its infectious character and widespread prevalence, it is a matter of veterinary, sanitary police, that should be taken charge of by the State just as much as glanders, rabies or contagious pleuro-pneumonia. Among those presenting reports upon the prevention of tuberculosis among domestic animals were Prof. B. Bang, of the Veterinary School of Copenhagen, representing Denmark; Dr. O. Malm, director of the Civil Veterinary Department, Norway; Mr. G. Regner, military veterinary surgeon, attached to the Board of Agriculture, Stockholm, Sweden; Dr. R. Rudovsky, State veterinarian at Brunn, Austria; Dr. Siedamgrotsky, chief veterinary officer in Saxony; and Dr. L. Stubbe of Brussels, veterinary inspector of the Board of Agriculture in Belgium.

The prevalence of tuberculosis varies in different localities. In Austria, Rudovsky thinks that only between 1 and 2 per cent. of the cattle are diseased; in Sweden, Regner thinks 20 per cent. may be infected; and in Norway, Malm gives it as his opinion that it exists on 25 per cent. of the farms, and that between 8 and 9 per cent. of all the cattle are infected.

In eastern Massachusetts, judging from the experience of this commission with veterinarians making private tests for owners in the spring of 1897, it is not unfair to assume that a condition of affairs exists quite as bad as in the more populous dairy districts of northern Europe. While less has been done towards State control of tuberculosis in England and Germany than in France and some of the smaller European countries, like Sweden, Norway, Denmark and Belgium, it is not because the importance of the trouble is not realized, but because the best means for undertaking the

eradication of bovine tuberculosis is being deliberated upon. England has had a Royal Commission on Tuberculosis investigating this malady for several years, whose work has been alluded to in a previous report of this Board.

At the conclusion of the International Congress in Baden-Baden, last August, the following resolutions were adopted : —

THE PREVENTION OF TUBERCULOSIS AMONGST DOMESTIC ANIMALS.

1. The prevention of tuberculosis in cattle is urgently needed.

2. The extinction of bovine tuberculosis on the part of the owners (voluntary extinction) is practicable, and should be universally aimed at. It demands the slaughter of dangerous tuberculous beasts as soon as possible, as well as careful protection of calves and healthy animals from infection. The voluntary extinction of bovine tuberculosis should be encouraged by the State, through the dissemination of correct views respecting the character of tuberculosis, respecting the modes of infection and the importance of tuberculin inoculation, and be supported by State grants. The best means hitherto known for the prevention of tuberculosis among domestic animals is tuberculin. Tuberculin should only be supplied under State control. In any case it should be given to veterinary surgeons alone.

3. A State prevention of bovine tuberculosis is thoroughly to be recommended. If it is applied with a certain caution, it can be carried out, and will hinder the further increase of the disease and will gradually stop it. The prevention requires : —

(a) The obligation of the veterinary surgeon to give the legal notice of every case of proved tuberculosis in the exercise of his practice.

(b) The quickest possible slaughter of dangerously tuberculous animals (particularly those animals which are affected with mammitis, tuberculosis of the uterus and of the intestines, as well as pulmonary tuberculosis), compensation being granted by the State, and the prohibition of the return of buttermilk from the co-operative dairies until it has been sterilized.

THE USE OF THE FLESH AND MILK OF TUBERCULOUS ANIMALS.

A. Of the Flesh.

Granted that a general compulsory inspection of slaughter animals exists before and after slaughter, the following measures are to be prescribed, in view of dangers for the health of the people which may be connected with the consumption of the flesh of tuberculous animals : —

1. Those professional men who carry out meat inspection are expected to examine the slaughtered animals, and so to give a guarantee that every case of tuberculosis among the slaughtered animals — and in every such case the spread of the tuberculous process — will be accounted for with certainty.

2. The most important part of the meat inspection is the sure detection and the perfectly uninjurious removal of the organs that have been changed by tuberculosis, together with their appendages.

3. With regard to the flesh of tuberculous animals, the parts affected with tuberculous centres and bound by the corresponding lymphatic glands are to be treated in the same way as the tuberculously altered organs. If the tuberculous alterations in the meat are confined to the lymphatic glands situated in it, the muscle may, after cutting out the bones, joints, vessels and lymphatic glands and adequate dissection, be handed over, in a sterilized condition, to be used for food. In the case of fat animals, the melting out of the fat tissue that has been separated, with avoidance of the tuberculous centres, is likewise permitted.

4. In the case of local tuberculosis and in that of general tuberculosis healed and limited to the organs of the cavities, the meat may be dealt out raw, to be used as food. If the tuberculous process in the intestines is of considerable extent, the obligation to declare it is to be insisted upon.

5. The whole of the meat, except the melted fat, is to be withdrawn from use as human food, if there exist marked emaciation or the signs of very recent infection of the blood (tumor in the spleen, and swelling of the lungs, liver, spleen or kidneys).

6. In cases where the local character of tuberculosis and the harmlessness of the meat are doubtful (especially when there are tuberculous caverns and incipient derangement of nutrition), the whole of the meat is to be sterilized before being handed over as fit for food.

7. The sterilized meat and the melted fat is to be sold under declaration.

B. Of the Milk.

1. The cows, goats, etc., kept for dairy purposes are to be subjected to regular veterinary control.

2. The milk of tuberculous animals is not to be used for human food, if the animals are emaciated or affected with tubercles in the mammae.

3. In accordance with the mode of proceeding in the kingdoms of Denmark and Sweden, the emaciated and tuberculous dairy animals are to be immediately removed from the farms and destined for slaughter, compensation being given to owners.

It will be seen by these resolutions that a system of veterinary sanitary police contemplates an efficient inspection of slaughter houses. This, however, applies more to the protection of the public health than to the eradication of disease.

The laws under which this commission acted prior to May 25, 1899, provided that it should receive the returns of inspections of slaughtered animals from the inspectors of animals and provisions in the different cities and towns, and also that it furnish applications for licenses for slaughter houses, and that a duplicate of every license granted in the State should be on file at the office of the Board of Cattle Commissioners. This did not seem to have much to do with the eradication of disease, and the inspection was placed in the hands of the local boards of health by section 20, chapter 408, Acts of 1899, as it seemed to be more of a local sanitary matter than one closely connected with the control of bovine tuberculosis, and it caused a good deal of extra work in the office of the commission, without any corresponding benefit. What the slaughter-house inspection by the local boards of health amounts to is a matter of conjecture. Every week old, emaciated cows, called "canners" and "bologna cows," are shipped to our markets for "beef," not only from without the limits of the Commonwealth but from towns in the dairy districts of the State. Many of these must be diseased and unfit for human food; yet, if the slaughter-house inspection was properly carried out, this contemptible business would not be as profitable as it appears to be, and would be given up. If the Cattle Commission seized the animals which were clearly diseased coming from without the limits of the State, they could be killed without appraisal or payment, and rendered as they ought to be; yet, if this were done, it would be unfair unless similar animals coming from within the limits of Massachusetts were also seized and killed. Such animals would, however, have to be paid for, if they had been owned within the State for six months prior to condemnation, from the appropriation of the commission.

As the object of the law is to kill diseased animals whose milk may be unhealthful or which may be a source of contamination to other cattle, it seems proper to allow them to

proceed to the slaughter house, if the inspection there is properly made. Theoretically, the health of the people is protected; practically, it is a question if the inspection is anything more or less than a farce in many places.

There is also a section in the law relative to meat inspection requiring all calves killed for veal to be over four weeks old; yet, as a matter of fact, half the calves killed for food are not more than one to two weeks old; a number are only a few days old, and some are no better than living abortions. If veal from calves under four weeks old is unhealthful, the law should be enforced; if it is proper that human beings should eat meat from any kind of a calf, the law should be repealed. If the law as it stands is too strict, it should be modified to meet the requirements of civilization, and then it should be uniformly enforced everywhere.

At some abattoirs there is an inspector of the United States Bureau of Animal Industry to examine beef and pork for export to foreign countries; he will not pass anything that the sanitary laws of those countries consider as unfit for food for their peoples, yet in some places what he will not pass as fit for food is sold to our own citizens. Surely the people of this country ought to be entitled to the same protection from the State that the United States government guarantees to foreigners.

The present policy of the Massachusetts Board of Cattle Commissioners follows the plan laid down in the resolutions given above, outside of the matter of slaughter-house inspection. The methods formerly pursued by the State have been found too extravagant and expensive. Similar measures were tried in Belgium, and proved there to be too costly.

During the past year cows that showed marked physical evidence of tuberculosis were condemned and killed; a few have been passed as fit for beef, but most of them were only fit to be rendered. When cows can be condemned on a physical examination, the work can be done at a less cost than under the former system, when the agent tested cows with tuberculin, and then reported the results to the office and received instructions which to kill and which to release. Under the present system, the agent examines, appraises and kills a diseased cow all at one visit. This system seems

to work satisfactorily, and very few complaints have arisen under it. Cows with nodulated udders have been tested with tuberculin, as have also some doubtful cases; if they reacted, they were destroyed.

Reducing the limit of value from \$60 to \$40 has resulted in a saving to the State. The appraisals have been very evenly made, and the average value, \$22.50 per head, is much lower than it formerly was. The work of the local inspectors seems to be sufficient to protect the people from the milk of cows owned in Massachusetts which are sufficiently diseased to be a danger to the public health, besides which, the badly diseased cows are the greater sources of danger to others.

A few herds have been tested with tuberculin and reacting animals removed, but only where the owner has shown a disposition to co-operate with the commission.

The reports of the inspectors show that the inspections of previous years have resulted in a healthier condition of the cattle, and it seems as though the work previously done by them had resulted in a diminution of the disease; it certainly has, as far as the bad cases go; whether a tuberculin test would show a corresponding improvement is uncertain.

Many other States now require cattle brought into their limits to be kept for dairy or breeding purposes to be tested with tuberculin. Among those in New England are Maine, New Hampshire, Vermont and Rhode Island; while, outside of New England, New Jersey, Pennsylvania and Illinois require it, and others will undoubtedly adopt similar requirements in time. The United States government also requires that all cattle imported shall be tested with tuberculin at the port of entry, as well as holding them in quarantine there for ninety days; therefore it seems only proper that Massachusetts should maintain similar rules and regulations for the protection of her owners of live stock; yet this Board has been hampered and impeded and imposed upon in every possible way by avaricious cattle traders and dishonest veterinarians, who disgrace what ought to be an honorable profession by making out imaginary certificates of test upon animals that never had a drop of tuberculin under their

skins. This is one of the most perplexing problems confronting the Board at the present time.

The efforts of the Cattle Commission to eradicate bovine tuberculosis should be confined to an expense not greatly exceeding the cost of an inspection each year, — that is, practically an examination of dairy herds to protect the public health, — and the cost of keeping up the quarantine work against importing any diseased cattle. It should consist of: —

(a) A quarantine against diseased cattle from adjoining States, to insure a healthy supply to take the places of those killed by the State or disposed of in other ways, remembering that our bovine population changes every ten or twelve years, and in milkmen's herds much more rapidly, — say every four or five years.

(b) An annual inspection by the local inspectors of animals, to protect the public health and improve the sanitary surroundings of the cattle. These badly diseased creatures are of more danger to other cattle than slightly infected ones, and when removed their stalls should be thoroughly disinfected before replacing them with new purchases.

(c) If any money remains from the annual inspection, it should be expended in testing entire herds for owners who will agree to accept the conditions laid down by the Board. It is useless to endeavor to free a farmer's herd from tuberculosis unless he will promise to co-operate with the commission. After a farmer's herd is thoroughly freed from tuberculosis, he should receive no more assistance from the State, but be himself compelled to maintain it in a healthy condition. It is better for the present that the farmer shall apply to the commission of his own volition for assistance than that the commission should urge its attentions upon him.

Another important point for the protection of herds from tuberculosis on farms where the calves are raised is noted in the resolutions already quoted, and that is, the danger from skim-milk and buttermilk from creameries. In creameries, where the milk of a number of dairies is mixed, it is possible to infect the calves on farms where tuberculosis does not exist by taking home skim-milk or buttermilk to feed them, some of which comes from herds infected with tuberculosis.

It is recommended that all such food shall be sterilized before being fed to the calves.

In Europe, the sediment from the centrifugal separator is considered especially dangerous, and it is advised, and in some places required, that all such material shall be burned.

Working upon these lines, the Board of Cattle Commissioners is of the opinion that tuberculosis among cattle can in time be very materially diminished, at a cost to the State not greatly exceeding the expense of a thorough annual inspection of the herds, including taking out and paying for the bad cases, with the added cost of keeping up a quarantine against diseased cattle from other States; and believes with Bang, who says, "In some twenty years it will be possible to go further and take more severe measures."

GLANDERS.

During the past year glanders and farcy have prevailed to an extent that must be considered serious, if not even alarming. More cases or suspected cases of this dangerous disease have been reported to the Cattle Commission than during any year in its history, and this calls for the co-operation of every lover of the horse and every veterinarian in the State in the efforts of the Board to eradicate this loathsome malady.

From Dec. 15, 1898, to Dec. 15, 1899, 614 cases of suspected cases of glanders or farcy have been reported to the commission; and of these, 543 have been destroyed as being infected, and 71 have been released after a careful examination, and in some cases have been continued in quarantine for some little time for further observation, if they showed suspicious symptoms, and not allowed to go free until it was certain they were not infected.

The following shows the cities and towns from which cases were reported and the number in each:—

TOWNS.	Killed.	Released.	Totals.	TOWNS.	Killed.	Released.	Totals.
Acton, . . .	—	1	1	Ashburnham, . . .	1	2	3
Andover, . . .	1	—	1	Auburn, . . .	1	—	1
Arlington, . . .	8	2	10	Barre, . . .	—	1	1

TOWNS.	Killed.	Released.	Totals.	TOWNS.	Killed.	Released.	Totals.
Berlin, . . .	2	—	2	Millbury, . . .	1	1	2
Beverly, . . .	1	—	1	Milton, . . .	1	—	1
Billerica, . . .	1	—	1	Nahant, . . .	3	—	3
Blandford, . . .	—	1	1	Natick, . . .	1	—	1
Boston, . . .	159	2	161	Needham, . . .	1	—	1
Boxborough, . . .	1	—	1	New Bedford, . . .	6	—	6
Boylston, . . .	1	—	1	New Marlborough, . . .	1	—	1
Braintree, . . .	2	—	2	Newton, . . .	13	1	14
Brockton, . . .	6	2	8	North Andover, . . .	1	—	1
Brookline, . . .	3	—	3	North Brookfield, . . .	—	1	1
Burlington, . . .	1	—	1	Northborough, . . .	—	1	1
Cambridge, . . .	38	3	41	Norwood, . . .	—	1	1
Charlton, . . .	—	1	1	Palmer, . . .	1	—	1
Chelsea, . . .	12	—	12	Peabody, . . .	1	1	2
Chicopee, . . .	1	1	2	Pittsfield, . . .	1	—	1
Clinton, . . .	10	1	11	Provincetown, . . .	—	1	1
Danvers, . . .	1	—	1	Quincy, . . .	3	2	5
Dartmouth, . . .	2	—	2	Randolph, . . .	1	—	1
Dudley, . . .	1	—	1	Reading, . . .	3	—	3
Easton, . . .	—	1	1	Revere, . . .	2	—	2
Everett, . . .	4	—	4	Rochester, . . .	1	—	1
Fall River, . . .	10	1	11	Saugus, . . .	3	—	3
Fitchburg, . . .	9	3	12	Somerville, . . .	33	1	34
Foxborough, . . .	—	1	1	Springfield, . . .	14	—	14
Gardner, . . .	2	—	2	Sterling, . . .	1	—	1
Gloucester, . . .	1	—	1	Stoneham, . . .	2	1	3
Granby, . . .	—	1	1	Sudbury, . . .	—	1	1
Granville, . . .	1	—	1	Swampscott, . . .	1	—	1
Great Barrington, . . .	1	—	1	Swansea, . . .	2	—	2
Haverhill, . . .	3	—	3	Taunton, . . .	2	—	2
Hingham, . . .	2	2	4	Tyngsborough, . . .	1	—	1
Holyoke, . . .	—	1	1	Upton, . . .	1	—	1
Hopedale, . . .	1	—	1	Wakefield, . . .	1	—	1
Hull, . . .	1	—	1	Waltham, . . .	13	4	17
Ipswich, . . .	—	2	2	Watertown, . . .	11	—	11
Lawrence, . . .	2	—	2	Wellesley, . . .	15	3	18
Leominster, . . .	2	1	3	West Boylston, . . .	1	—	1
Lexington, . . .	7	—	7	Westminster, . . .	1	1	2
Lincoln, . . .	1	—	1	Weston, . . .	1	—	1
Lowell, . . .	3	1	4	Westwood, . . .	1	—	1
Lunenburg, . . .	2	—	2	Whitman, . . .	1	—	1
Lynn, . . .	22	6	28	Winchester, . . .	1	—	1
Lynnfield, . . .	1	—	1	Winthrop, . . .	4	1	5
Malden, . . .	4	—	4	Woburn, . . .	2	—	2
Marlborough, . . .	1	—	1	Worcester, . . .	46	12	58
Medford, . . .	1	—	1	Wrentham, . . .	1	—	1
Melrose, . . .	6	—	6				
Middleborough, . . .	3	—	3		543	71	614
Milford, . . .	—	1	1				

Of these 614 cases, 238 have called for the personal investigation of a member of the Board or one of its agents, with the following results: —

One hundred and thirty-nine were evident cases of disease, and were ordered killed.

Forty-eight were clearly free from disease, and were ordered released.

Fifty-two were doubtful cases, from which guinea pigs were inoculated.

In 27 instances the guinea pigs developed glanders, and the horses were destroyed.

In 25 cases the guinea pigs did not develop glanders. Of these, 21 horses were released and 4 were killed, having developed such marked clinical evidences of glanders while awaiting the results of the guinea-pig test as to render another test unnecessary. In one instance it was necessary to inoculate guinea pigs three times from the nasal discharge of a horse suspected of having glanders and farcy before they developed the disease, there not being enough germs of glanders present in the material taken the first and second times to infect these little animals; yet the horse was so suspicious that the Board did not feel that it ought to be released on the negative tests. The final results proved the suspicion to be well founded. In one or two other cases a second inoculation was necessary, but generally the test is decisive on a single trial.

Two horses were killed on a mallein test, and 1 released.

One case given as negative was not reported to the Board until the owner had disposed of it, and there is no positive proof that it had glanders; on the doubt, it is entered as negative.

A case reported as positive from Great Barrington is doubtful; the horse died in quarantine, and there was not a careful autopsy made upon it.

The 375 remaining cases mentioned were killed with the owners' consent, except 159 reported from the city of Boston, where the board of health had full charge of glanders, and 3 or 4 that died in quarantine, leaving 116 killed with the owners' consent outside of the city, except the few which died of the disease. Many of these were killed upon the advice of veterinarians, and in a great number of cases were reported to the Board as killed with the consent of the owner.

The above list of towns, being alphabetical, gives no idea of the geographical distribution of glanders and farcy in Massachusetts, but it can readily be seen that there are certain centres of infection; Boston is the principal one, here and in the surrounding cities and towns the larger number of cases are found; Worcester must be looked upon as another centre, from which occasional cases are taken to the neighboring towns; Fitchburg is another, although a smaller centre, the cases in Sterling, Leominster, Lunenburg, Ashburnham, Westminster and Gardner being more or less traceable to that city; Springfield is another small centre, and there are a few cases met with in the south-eastern corner of the State, in Fall River and New Bedford, and some of the intervening country towns. Occasionally cases occur in the cities of the Merrimac valley. Local outbreaks are also met with; for example, the cases occurring in Clinton seem to be the result of an outbreak there in 1898, 12 having been killed there in that year and 10 in 1899.

The cases reported from Newton and Wellesley represent another local outbreak, nearly all of these horses having been owned at Newton Lower Falls, on either side of the Charles River. At this point there are two public watering troughs, one in Newton and one on the Wellesley side of the line, which no doubt contributed to the spread of the disease in this village.

In order to obtain as complete returns of the number of cases of glanders and farcy occurring in this Commonwealth as possible, July 28 the following letter was sent to the principal renderers:—

Boston, July 1, 1899.

DEAR SIRS:—Your attention is called to the following sections of chapter 408 of the Acts of 1899:—

SECTION 14. Whenever in any city or town the board of health or any member or agent thereof, or any other person, except the members of the board of cattle commissioners, who has knowledge of or has good reason to suspect the existence of any contagious disease among any species of domestic animals within the limits of this Commonwealth, or that any domestic animal is affected with any such contagious disease, whether such knowledge is obtained by personal examination or otherwise, shall immediately give written notice thereof to the board of cattle commissioners or any of its members, agents or inspectors, and for

failure so to do shall be punished by a fine not exceeding one hundred dollars : *provided, however*, that no such notice shall be given in the city of Boston relating to the diseases known as glanders, farcy and rabies, which diseases shall be cared for by the board of health of the city of Boston.

SECTION 34. Every person who kills or causes to be killed, with the consent of the owner or person in possession thereof, any animal under suspicion that the same is affected with or has been exposed to a contagious disease, and who, upon the inspection of the carcass thereof, finds or is of the opinion that the same is affected with a contagious disease, shall notify such owner or person in possession thereof of the existence of such disease, and shall also immediately notify the board of cattle commissioners, its agent or inspector, of the same, and of the place where the animal was found, the name of the owner or owners, or person or persons in possession thereof, and of the disposal made of such carcass. Any person violating the provisions of this section shall be subject to the same penalties as are provided in section twenty-eight of this act.

SECTION 35. Contagious diseases under the provisions of this act shall include glanders, farcy, contagious pleuro-pneumonia, tuberculosis, Texas fever, foot-and-mouth disease, rinderpest, hog cholera, rabies, anthrax or anthracoid diseases, sheep scab and actinomycosis.

This applies to renderers as well as to other persons. You will, therefore, in the future report all such cases to this Board.

Renderers within the limits of the city of Boston do not have to report cases of glanders, farcy or rabies to this Board, but to the Boston board of health, if said cases are found within the city limits; but all cases of glanders and farcy brought from without the limits of the city of Boston to such rendering establishments must be reported to the Board of Cattle Commissioners, together with the names and addresses of the owners.

Per order Massachusetts Cattle Commission,

AUSTIN PETERS,
Chairman.

The rendering establishments to which letters were sent, together with blanks for answers and stamped envelopes, were these : —

N. Ward Company,	.	.	.	.	South Boston.
Brighton Abattoir,	.	.	.	.	Brighton.
Parmenter & Polsey,	.	.	.	.	Peabody.
Muller Brothers,	.	.	.	.	North Cambridge.
Swift Rendering Company,	.	.	.	.	Lowell.
Lowe Brothers,	.	.	.	.	Fitchburg.
Bartlett's Rendering Works,	.	.	.	.	Worcester.

E. H. Gammon,	New Bedford.
Thos. Kirby,	South Hadley Falls.
W. H. Abbott,	Holyoke.
Bartlett & Holmes,	Springfield.
E. J. Whitman,	Dracut.
Wm. Lanery,	Amesbury.
W. C. Lawrence,	Brockton.
James E. McGovern,	Lawrence.

In this way the Board has received reports from the following renderers, since August 1, of cases of glanders and farcy : —

N. Ward Company,	14 reports, 53 cases.
Brighton Abattoir,	18 reports, 60 cases.
Muller Brothers,	14 reports, 32 cases.
Parmenter & Polsey,	3 reports, 3 cases.
J. E. McGovern,	4 reports, 3 cases.
Lowell Rendering Company,	2 reports, 1 case.
Lowe Brothers,	5 reports, 6 cases.
Bartlett & Holmes,	4 reports, 10 cases.

Where the reports exceed the number of cases of glanders, it is because tuberculosis was included in them.

The total number of reports thus received is 64 since August 1, and includes 168 horses. Thirty-four, or about 20 per cent. of these cases, were not reported through any other channel, and would not have come to the knowledge of the Board if it had not been for the renderers' reports. This shows that four cases of glanders or farcy in every five have the attention of the Cattle Commission called to them, which is a larger proportion than the Board imagined were reported to it, and shows that the law is fairly well complied with. When a case that has not previously been reported is reported to the Board by the renderer, the inspector of animals for the city or town is immediately notified to see that the premises from which the diseased animal came are thoroughly disinfected, and, if any other horses are kept there, to ascertain if they are healthy, and inform the commission of the results of the investigation.

The renderers' returns do not include Mr. Bartlett of Worcester, as he reported every case in that city directly to Commissioner Herrick, as frequently as he received them.

The cases which the Board would not otherwise have heard of were all outside of Boston, as in Boston this work is in the hands of the board of health. The co-operation of the renderers in this work has been a valuable assistance to the Board, and their willingness to help is highly praiseworthy ; and, while the commission has a legal right to require these returns, yet the cheerful readiness with which they have been furnished is exceedingly commendable, and deserves the heartiest thanks of the Board, which it takes this opportunity to express.

On account of the number of cases of glanders called to the attention of the commission early in the summer, and because of the passage of the new law relating to infectious diseases of animals, it seemed important that persons should be informed as far as possible concerning the proper course to pursue in case of outbreaks of this disease. The following notice was therefore sent, about July 1 (printed in large type), to all the postmasters in the country towns in the State, to the chiefs of police in many of the larger places, and to some of the inspectors of animals in towns where glanders was specially prevalent, asking them to post it where people would see it : —

NOTICE.

Attention is hereby called to the following sections of chapter 408 of the Acts of 1899 : —

SECTION 14. Whenever in any city or town the board of health or any member or agent thereof, or any other person, except the members of the board of cattle commissioners, who has knowledge of or has good reason to suspect the existence of any contagious disease among any species of domestic animals within the limits of this Commonwealth, or that any domestic animal is affected with any such contagious disease, whether such knowledge is obtained by personal examination or otherwise, shall immediately give written notice thereof to the board of cattle commissioners or any of its members, agents or inspectors, and for failure so to do shall be punished by a fine not exceeding one hundred dollars : *provided, however*, that no such notice shall be given in the city of Boston relating to the diseases known as glanders, farcy and rabies, which diseases shall be cared for by the board of health of the city of Boston.

SECTION 15. Upon the receipt of such notice from any person the board of cattle commissioners shall inspect or cause to be inspected by its authorized agent any such animal or animals, and if upon such inspection said board or such inspector suspects or has reason to believe that

contagion exists, the board or inspector shall proceed according to the provisions of sections twenty-three, twenty-four, twenty-five and twenty-six of this act.

SECTION 34. Every person who kills or causes to be killed, with the consent of the owner or person in possession thereof, any animal under suspicion that the same is affected with or has been exposed to a contagious disease, and who, upon the inspection of the carcass thereof, finds or is of the opinion that the same is affected with a contagious disease, shall notify such owner or person in possession thereof of the existence of such disease, and shall also immediately notify the board of cattle commissioners, its agent or inspector, of the same, and of the place where the animal was found, the name of the owner or owners, or person or persons in possession thereof, and of the disposal made of such carcass. Any person violating the provisions of this section shall be subject to the same penalties as are provided in section twenty-eight of this act.

SECTION 35. Contagious diseases under the provisions of this act shall include glanders, farcy, contagious pleuro-pneumonia, tuberculosis, Texas fever, foot-and-mouth disease, rinderpest, hog cholera, rabies, anthrax or anthracoid diseases, sheep scab and actinomycosis.

Please post this in a conspicuous place.

AUSTIN PETERS, *Chairman,*

L. F. HERRICK, *Secretary,*

C. A. DENNEN,

Board of Cattle Commissioners.

Boston, July 1, 1899.

The reports of the Massachusetts Cattle Commission for many years have been printed in the report of the Secretary of the State Board of Agriculture. Prior to 1878 there seems to be no reference to glanders or farcy; but in that year the powers of the Cattle Commission were made to apply to horses, asses and mules affected with this disease, and the report mentions killing a few diseased animals under the act, and refers to the fact that the disease is not infrequent, and that the owners kill animals of their own free will when veterinarians inform them of its nature, and regrets that sometimes unscrupulous owners sell or trade off these beasts.

In 1879 the Board ordered 43 glandered horses killed.

In 1880, 27.

In 1881, 40 were killed by the commission.

In 1882, 10 reported killed.

In 1883, no report.

In 1884, number not given.

In 1885, 18 killed.

In 1886, 75 killed.

In 1887, much space given to report on glanders, Dr. Winchester putting in minority report.

In 1888, 76 killed.

In 1889, 57 killed by Board.

In 1890, 90 cases or suspected cases, most of them killed.

In 1891, 157 cases killed either by order of the commission or reported killed with consent of owner, or double the number in any previous year.

In 1892, 134 killed by commission or reported killed, but the report comments that many cases are killed privately and not reported, to avoid publicity.

In 1893, report does not give number of cases, but mentions disease occurring in the towns of Attleborough, Auburn, Boston, Brockton, Cambridge, Chelsea, Clinton, Concord, Everett, Fall River, Lawrence, Lowell, Milford, Millbury, Natick, Quincy, Somerville, Springfield, Taunton, Westport and Winthrop. It will be noticed that subsequent reports show it to have prevailed in these neighborhoods ever since. The report still complains of persons who fail to report cases to the Board, cheap horse traders who sell infected animals, and quack horse doctors who pretend to undertake the cure of glanders and farcy. These obstacles are still met with, and in all probability will continue to be for some years to come.

In 1894, 160 animals were condemned and destroyed, as reported to the commission.

In 1895, 206 animals condemned and killed, as reported to the Board.

In 1896, 341 animals killed by order of the Board, or with consent of owner.

In 1897, 402 animals killed by order of the Board, or with consent of the owner.

In 1898, 387 animals were killed by order of the Board, or with the consent of the owner.

In 1899, 543, as already stated.

This would show a steady and alarming increase, if it were not for the fact that probably much of this year's increase is the result of more complete returns than have ever

yet been received by the Board of Cattle Commissioners ; as it is, the matter is sufficiently serious.

It is estimated by the Board that the average value of the horses killed in Massachusetts during the past year was about \$78.50 per head ; this means an annual loss to the horse owners of the State of over \$42,000 ; as some cases are not reported, it means a loss of considerably more if these were included.

Glanders and farcy spread in a variety of ways : public watering troughs undoubtedly play a part in infected localities ; cohabitation of the diseased and healthy ; trading and selling diseased horses by cheap horse traders ; and infected animals on peddlers' and advertising wagons going around the country also cause fresh outbreaks. Improper disinfection of premises, harnesses and utensils after removing diseased animals will also perpetuate the trouble.

During the past year cases have been called to the attention of the Board of persons knowingly selling glandered horses, with the result that a man in Worcester was fined \$50 for selling a glandered horse, on complaint of Commissioner Herrick.

A man was fined \$20 for selling a glandered horse in Palmer, the case being prosecuted by the district police, at the request of the Cattle Commission.

Two men are held for the grand jury at Salem this January in \$300 each for selling a horse with farcy in Saugus, on complaint of Commissioner Peters.

A complaint has been made to the district police of a Somerville man selling the horse to one of the Saugus men by the Commission. Complaint has also been made to the district police of a man in Westminster for knowingly removing or concealing a horse with glanders. It is hoped the district police will be able to prepare and prove charges against these men.

Complaint was made to the district police of a firm of barge owners in Nahant, who sent a horse to a Boston sale stable last summer suffering with glanders, which was sold to a man in Stoneham, where it was killed by order of the Board. (Nothing seems to have come of this.)

In many of these cases the difficulty is to prove that a

man knowingly sells a horse with a contagious disease ; if there is no proof that he knows or has reasonable cause to believe that the animal has a contagious disease, there is no case against them.

Complaint was made to the district police last summer of a man in Melrose who buys old horses and takes them to his place to kill. He bought two glandered horses in Boston, one from Somerville and one from Chelsea, and took them to Melrose to slaughter. A member of the commission visited the place one day, after hearing of these cases, and found a shanty in the woods, and the heads, necks and shoulders of two old horses ; the hind quarters and loins were gone. The owner was not at home, but his man said the remains of the two horses were sold for fertilizer. Just why the hind quarters and loins of a horse make better fertilizer than the rest is a problem to be solved ; also, what is done with them should be known. The district police watched the establishment for awhile, and concluded there was no case against him. He took another reported case of glanders there a few days ago ; but, if he maintains he did not know the horse had glanders, there is no case against him.

There is a man in Malden who occasionally buys horses to kill, in the same way. The horse taken from Somerville to Saugus, where the two men now held for the court in Salem sold him from one to another, was first taken to Malden ; but the horse killer would only give \$2.50 for him, and one of the Saugus men offered \$3, and took him home.

If there is no legislation to stop these irresponsible persons handling diseased animals, there should be. Diseased animals should all be sent to responsible rendering establishments, and the proprietors of these plants should be required by statute to report all such cases to the Cattle Commission.

As glanders and farcy prevail over Massachusetts, and every city and town forms a portion of the Commonwealth, one general law relating to contagious animal diseases should suffice for all ; special legislation is pernicious when not needed, and it is to be hoped that it will not be carried any farther than it has been in regard to Boston.

It is to be hoped that a rigid enforcement of the law in the future will lead to a diminution in glanders and farcy; but at present it is a great source of loss to horse owners and a danger to the community.

A number of the doubtful cases decided by the guinea pig test were of a chronic character, that may have been spreading the disease for several months, or even longer. The killing of such animals may have an effect in lessening the number of future cases.

RABIES.

At the time of compiling the last report upon rabies, which carried up to Dec. 15, 1898, there were held in quarantine by the Cattle Commission eleven dogs which had been bitten, or were in neighborhoods where they might have been bitten, by dogs that were rabid or suspected of being afflicted with this disorder. Three of these animals were in Lynn, and had been bitten by a dog supposed to be rabid. The head of the latter was sent to the commission in October, 1898, and rabbits were inoculated with material from his brain. At the end of ninety days the rabbits were still healthy, and the three quarantined canines were released Dec. 21, 1898. The other eight still in quarantine a year ago last December were what remained from an outbreak when twelve dogs were quarantined in Newton in a neighborhood where there was a case of rabies. Two of these had died of rabies, and two had been shot by their owners as a matter of precaution at the time of making the last report. The remaining eight were still healthy Dec. 21, 1898, when the ninety-day period of quarantine expired, and they were ordered released.

Just after completing the last annual report there was an outbreak of rabies in that part of Boston known as Dorchester, near Milton Lower Mills. A dog was reported by the inspector of the Boston board of health* as having had rabies. The board of health "notified" the owners of a number of other dogs in the vicinity to keep them in quarantine. One of these animals was reported to have died of

* Under special act of 1899, he now has a legal power to quarantine dogs exposed to rabies, or horses suspected of having glanders or farcy, independently of the Cattle Commission; prior to that time he had to secure the co-operation of the commission to quarantine animals legally.

rabies December 29. One of the dogs, whose owner was "notified" to keep him in quarantine, was a setter, and was taken to Grand Isle, off Osterville in the town of Barnstable, January 4, to be used for hunting; here he was ordered quarantined by the Cattle Commission, January 4, as the result of a letter from the Boston inspector, and remained there until February 17, when his owner broke quarantine through ignorance of the law, but was not prosecuted, as he made ample apology to the Board for the misunderstanding, and promised to keep him under control until the three months was up. The dog remained healthy. No further trouble has resulted from the Boston outbreak, so far as the commission has been informed.

There were a couple of cases of rabies in Melrose in November, 1898. One of these was a strange dog, who owned him or where he came from not being known. He strayed into a prayer meeting in the Baptist Church one evening, and bit a woman on the face; she died about a month later of hydrophobia. Seeing an account of this case in the daily papers the last of December was the first intimation the Cattle Commission had of the presence of this disease in Melrose. Upon investigation, further particulars were obtained concerning this case, and it was also ascertained that another dog owned in that town died of what was supposed to be rabies in November. Two dogs which used to play with the latter were ordered quarantined, as a matter of precaution; they were kept in a state of isolation until March 2, when they were released from quarantine, still healthy. It seems that the tramp dog, which bit the woman in church, had been noticed for a couple of days in the neighborhood. After he bit the woman the Baptist minister held him so he could do no further damage, and handed him over to the police, who shut him up and then allowed him to escape; he then bit a boy, whereupon he was recaptured and shot. After learning of the danger from the woman's death, the boy went to New York and took the Pasteur preventive treatment. The Cattle Commission does not know that the police reported the suspected case of rabies in the dog to the Melrose board of health; if they did, the board of health never reported it

to the Cattle Commission, as required by law. In this instance, if the animal had been secured when it was noticed that he was a stray dog acting in a peculiar manner, he might never have bitten any one. If after biting the woman he had been kept secured and the commission notified, he would not have bitten the boy; and it might have been ascertained that the dog had rabies and had bitten a person, thus giving her an opportunity to take the Pasteur-treatment and save her life, if she decided to do so.

In December, 1898, an outbreak of rabies occurred in Ipswich, but through ignorance of the law it was not reported to the commission until Jan. 16, 1899. December 4 a dog owned in this town acted in a peculiar manner, and was shot December 7, after biting one or more other dogs. One of the neighbor's dogs showed symptoms of hydrophobia December 21 and bit a dog, a horse and a cow. The cow died of rabies January 12, and was proved to have this disease, the head being sent to Dr. Frothingham, who inoculated rabbits with material from her brain, with positive results. The horse was shot by its owner, as reported to the commission January 15. The dog said to have been bitten December 21 was held in quarantine until March 16, and then released, having developed no symptoms of disease. Two more dogs were quarantined in Ipswich January 21, on account of this outbreak, but were released, still healthy, March 16, ninety days having expired without any symptoms of disease having been noticed. March 17 a St. Bernard pup was reported to the commission from Ipswich as having rabies, and was ordered killed by a member of the Board, as apparently suffering from this malady; but a rabbit test showed him to have been free from it.

As a result of the appearance of rabies in Ipswich, there came near being an outbreak on the borders of Wenham and Hamilton. A rabid dog strayed from Ipswich to the vicinity of the Myopia Club, where he was killed after biting another dog, which died March 19, showing symptoms of rabies. The latter dog's head was cut off and sent to Boston for examination. The rabbits inoculated by Dr. Frothingham gave positive results April 18. Two dogs in Hamilton and

six in Wenham were quarantined by the local inspectors as a matter of precaution, by order of the commission, all of which were released as healthy June 15.

The head of a cat thought to have been rabid was sent to Dr. Frothingham from Melrose January 19, but the rabbit test was negative.

February 7 the head of a fox terrier was sent from Swampscott on suspicion of having had rabies, but the rabbit test was negative.

April 3 a case of rabies in a dog was reported by the inspector of animals in Lowell, but this was not verified by the rabbit test.

April 5 a dog was quarantined by the local inspector in Ipswich, on suspicion, but was apparently healthy, and was released by order of the commission April 13.

June 2 the head of a dog supposed to have been rabid was sent to the commission from Lynn; one rabbit and two guinea pigs gave negative results.

August 18 a head of a dog was sent by the police department of Gloucester, but was too much decomposed when it arrived to be of value; rabbits inoculated died of septicæmia. This was a young dog recently taken to Gloucester from Boston, and there was no reason to believe he had rabies; but he bit a policeman, who went to New York and took the Pasteur treatment as a matter of safety.

August 22 the head of a dog was sent from Lynn; inoculation tests showed him to have been free from rabies.

September 20 the Worcester papers reported a case of rabies in a dog in Oxford, stating that he had bitten a horse, and was shot. Commissioner Herrick went to Oxford September 21 to investigate the matter, and learned that the dog had been shot and buried. The grave was on the edge of a pond and was dug at low water, a heavy rain had filled the pond up so that it was impossible to disinter the remains; but the collar was saved, and from this it was learned that the animal was owned in Worcester. The owner was seen, and said that he had a collie pup that had been missing for two or three days, and undoubtedly had strayed away from home and been shot. As there are no other reports of rabies from the neighborhood of Worcester, and as there is

no complaint that the horse has shown any signs of rabies, it is more than probable that this was not a case of hydrophobia.

October 24 the head of a dog was sent from Brookline ; inoculation tests gave negative results.

November 13 the head of a bull terrier was sent from Swampscott, supposed to have been rabid ; inoculation tests at date of writing negative. Two pigs bitten by him are still in quarantine.

November 27 the head of an ownerless dog was sent from Salem by the board of health, having been shot by a policeman, on suspicion of having rabies ; results of inoculating rabbits are still negative.

From this report it will be seen that there has not been a positive case of rabies reported to the Massachusetts Cattle Commission since last March, — at least, not a case has been reported since then that has been proved to have been rabies. The few suspected cases since have been negative, so far as this Board has been able to ascertain.

In Lynn two and three years ago cases of rabies among dogs were frequent, and there had not been a time for a number of years when an occasional outbreak did not occur. Many dogs and some people were bitten, entailing quite an expense upon the latter for the Pasteur preventive treatment, which they had to go to New York to receive ; and the loss of at least one life, — that of a police officer who did not realize the danger from the bite of a stray dog until too late.

There has not been a positive case of rabies in Lynn, so far as is known, since July, 1898 ; in the contiguous town of Swampscott there has not been a positive case since June of the same year ; and in Salem, which adjoins Swampscott, there has not been a positive case, so far as this Board is aware, since February, 1898. This result seems to have been attained by the co-operation of the boards of health and inspectors of animals with the Cattle Commissioners, the efforts of the local authorities being especially commendable in Lynn and Swampscott. It shows what can be done if the matter is taken hold of in earnest. In these places suspicious cases have been at once reported to the Cattle Commission, and the heads of the dogs which have died or been

killed have been sent to the laboratory, in order to decide whether the suspected animal was or was not rabid. Exposed dogs have been quarantined for ninety days, and there has been a vigorous attempt to enforce the dog-license law, resulting in the destruction of ownerless and stray dogs. In Lynn and Swampscott a dog-muzzling order was also adopted during a portion of the spring and summer of 1898.

The quarantine regulations carried out in other localities where rabies has appeared seem to have had the desired effect of checking the spread of the disease. As there has not been a positive case reported since last March (unless the one in Lowell in April is considered positive: this was not verified), it is to be hoped that this dangerous disorder is under control, and that it may be kept so. In order to do this, the dog-license law should be thoroughly enforced in every city and town, so that every dog will have a responsible owner interested in its welfare, and that this will lead to the annual destruction of all ownerless or valueless dogs.

When a case of suspected rabies does occur, it should be at once reported to the Cattle Commission, and the dog isolated; or, if it dies, the head should at once be sent, in as fresh and clean a condition as possible, to the Board for examination. If a person is bitten, the result can be ascertained in time to inform any one whether the case is positive and it is necessary to take the Pasteur preventive treatment, or whether there is no danger, if the fresh head is sent at once and in good condition.

The bungling methods of police authorities in many cities and towns is very reprehensible, where dogs are shot and called mad without reporting the cases to the Cattle Commission, as required by law, which would take pains to ascertain whether the case is rabies or not, and, if it proves to be so, will order the adoption of necessary precautions; or, on the other hand, the police sometimes allow a strange, peculiar-acting dog to go at large without any interference on their part until it has done some actual damage. The case already cited as occurring in Melrose is a good example of the kind, where the carelessness and ignorance of the law and their duties on the part of the police led to serious results.

As has been stated in a previous report, when possible it is desirable to chloroform a dog suspected of rabies, as a bullet tears the brain to pieces and infects it with septic germs, so that it is often unfit to use for inoculating experimental animals for diagnostic purposes. As dogs may have brain troubles causing symptoms resembling rabies, it is not scientific to shoot a peculiar-acting dog and call him mad, without, if possible, verifying the diagnosis with a rabbit test, which settles the question beyond all doubt.

TEXAS FEVER.

There have been no cases of Texas fever in Massachusetts during 1899, but the commission is always on the alert to prevent any outbreaks during the summer months.

Early in the summer the attention of the board was called to the fact that cattle were being unloaded from cars from infected districts at the Brighton Abattoir, at a point where it has always been customary to unload them for immediate slaughter; but, instead of killing them from the pens into which they were unloaded, as in previous years, they were driven down a lane back of the pens to another yard. The following placard was immediately posted upon the street along which the cattle were driven and in the pens in which they were yarded: —

NOTICE.

Attention is hereby called to the following sections of chapter 408 of the Acts of 1899: —

SECTION 35. Contagious diseases under the provisions of this act shall include glanders, farcy, contagious pleuro-pneumonia, tuberculosis, Texas fever, foot-and-mouth disease, rinderpest, hog cholera, rabies, anthrax or anthracoid diseases, sheep scab and actinomycosis.

SECTION 36. Any person who fails to comply with a regulation made or an order given by the Board of Cattle Commissioners or by any of its members in the discharge of its or his duty, shall be punished by a fine not exceeding five hundred dollars, or by imprisonment not exceeding one year.

SECTION 38. No Texan, Mexican, Cherokee, Indian or other cattle, which the cattle commissioners decide may spread contagious disease, shall be driven contrary to any order of the board of cattle commissioners, on the streets of any city, town or village, or on any road in this Commonwealth, or outside the stock yards connected with any railroad in this Commonwealth.

SECTION 39. In all stock yards within this Commonwealth said Texan, Mexican, Cherokee or other Indian cattle, which the cattle commissioners decide may spread contagious disease, shall be kept in different pens from those in which other cattle are kept.

SECTION 40. Any person or persons violating the provisions of the two preceding sections shall be punished by a fine of not less than twenty nor more than one hundred dollars.

As these pens and this street are being used for cattle from districts infected with Texas fever, the Massachusetts Cattle Commissioners forbid the bringing of any neat cattle upon these premises except those intended for immediate slaughter.

AUSTIN PETERS, *Chairman*,

L. F. HERRICK, *Secretary*,

C. A. DENNEN,

Board of Cattle Commissioners.

BOSTON, June 26, 1899.

Not long after posting this notice a man with three young cattle, a two-year-old bull, a two-year-old heifer and a yearling heifer, two of which were in a wagon, had the wagon break down near one of the pens used for the quarantined cattle, and he drove them into it while he took the wagon to be repaired. When he returned for the cattle his attention was called to the order on the fence, and he had to have them killed and take their beef value. This is all the trouble the commission has had over Texas fever the last year.

Many interesting experiments are being tried at the agricultural experiment stations in Texas, Missouri and Louisiana; in connection with the communication of Texas fever, and immunizing northern cattle of improved breeds when taken to points in the south for the purpose of improving the native stock; but in Massachusetts the main object in connection with this disease seems to be, for the present at least, to prevent its introduction during the summer months.

SYMPTOMATIC ANTHRAX.

An outbreak of symptomatic anthrax occurred in the northern part of Ashburnham in February and early in March. It was reported to the commission by Dr. O. F. Lord of Fitchburg, February 28, who wrote as follows:—

GENTLEMEN:— I learned from a reliable source that there are four cases of anthrax or black leg in the herd of John Wright of Ashburnham. As this is an adjoining town of Fitchburg, and cattle are liable to come here, I thought I would notify you, so you might act accordingly and isolate the herd, etc.

Dr. Lord's letter was duly acknowledged, and at the same time Mr. J. L. Clark, one of the inspectors of animals in Ashburnham, was written to, to investigate the matter more fully and inform the commission of the result. March 8 the following letter was received from the other inspector:—

ASHBURNHAM, MASS.

DEAR SIRs:— Mr. J. L. Clark handed me your letter of March 1, and I have been over to Mr. John A. Wright's and examined the heifer which died last night. The head and neck were swollen, and the tongue was swollen, and looked as if on the side of the tongue there had been blisters which had burst, discharging their contents and leaving a deep sore. The tongue looks very much inflamed and the cheek under the skin looks black.

Mr. Wright informs me that this makes four that he has lost, and they all seemed different. One's shoulder was swollen, another's hind legs were swollen, and the other was swollen on the back. He told me that he had removed them from the rest of the herd as soon as he found that they were sick. I could not see any symptoms of gloss-anthrax, blain, black tongue or black leg. I do not think the disease is caused by exposure or impoverished keeping, for Mr. Wright is a good feeder, and I fail to find any peculiar odor or atmospheric conditions favored by filth or poor ventilation. Mr. Wright keeps his barn clean and in good order. I think it will require your assistance to stop the disease from spreading. I asked him to leave the heifer where she now is until you can send a veterinarian to examine her.

Yours truly,

C. W. WHITNEY,
Second Inspector.

After receiving this letter the chairman of the Board arranged with Dr. Langdon Frothingham to visit the farm with him March 11. Mr. Whitney met them at the South Ashburnham station with a sleigh, and with one of the selectmen drove to Mr. Wright's. The dead heifer referred to was found in an old hen house, where it had been saved

for examination. The carcass presented the appearance described in Mr. Whitney's letter; the principal lesion seemed to be a swelling under the skin of the neck and into adjoining muscles. Specimens from the neck were removed by Dr. Frothingham for microscopic examination, who reported March 14 that the heifer died of symptomatic anthrax.

At the time of the visit of the chairman of the Board and Dr. Frothingham the other cattle were examined. There were ten or a dozen cows, a few yearlings and two-year-olds left, but all seemed healthy, and the temperatures were taken and none were found to be feverish.

This is a disease peculiar to young cattle, and none of the mature ones showed symptoms of sickness at any time.

After receiving Dr. Frothingham's report, Mr. Wright was written to, as follows:—

Boston, March 14, 1899.

MR. JOHN WRIGHT, *Ashburnham, Mass.*

DEAR SIR:—Dr. Frothingham informs me that your young cattle have died of symptomatic anthrax, which is caused by a spore-producing bacterium. These spores are little seeds in the germ that produce the disease, and if they get into the system of another young animal through a cut or scratch it is likely to cause the trouble to appear in that one. As these spores are very small and easily spread around, and retain their life for some time, Dr. Frothingham recommends that you be very particular about disinfecting the stable where the sick cattle were, also that there is danger of its spreading through dragging a dead animal along the ground; and that it would be well, if you have not already done so, to carefully burn the dead animals and sprinkle chloride of lime along the ground where their carcasses may have been drawn, also put chloride of lime in the hen house where the carcass lay that we saw Saturday, or else soak the ground in the hen house thoroughly with a solution of corrosive sublimate, one to one thousand parts, and also avoid having the young cattle go where the carcasses of the dead ones have been dragged over the ground.

It is not unlikely that, last season having been an unusually wet one, these germs grew and produced spores which got on some of the hay which has been cut on low-lying, swampy ground, and that they have retained their life until the hay was fed this winter. Of course this is not certain, but a mere suggestion. If there should be any hay that you are at all suspicious of, as having

come from swampy ground, perhaps it would be better to burn it than to feed it to young stock. I hope, however, that you will not have any more trouble, but think it would be better to take every precaution possible.

Also avoid taking an animal that is dead along near a brook which may flow down to a neighbor's farm, as the disease might be spread in this way to his land.

Yours truly,

AUSTIN PETERS,
Chairman.

As nothing more has been reported to the commission concerning this outbreak, it is believed that there were no more cases.

The Bureau of Animal Industry at Washington prepares an attenuated virus for protective inoculation for symptomatic anthrax or "black leg" in cattle, as does also the Pasteur Company of Chicago. If any farmer should have trouble from this disease during the coming year, and will report the matter at once to the commission, the Board will obtain a supply of the material for the protective inoculation, and furnish the services of a veterinarian to see that the work is properly done. In order to be of value, the outbreak of the disease should be reported immediately, to allow time to furnish the protective treatment to susceptible animals before there is an opportunity for them to develop the malady in a fatal form.

ACTINOMYCOSIS.

Actinomycosis was added to the list of diseases to be considered contagious by the last legislature. Under the law the Cattle Commission has the power to kill animals suffering from this disease without appraisal or payment. It does not seem necessary in all cases to order such animals destroyed; but in advanced cases, where the animal is emaciated and evidently suffering from the diseased condition of the jaw bone, not only as a result of the pain, but the inability to eat, also, it seems only an act of humanity to kill such a creature and forbid the sale of the flesh.

In some cases actinomycosis or "lumpy jaw" may be associated with tuberculosis in the same animal. Occasionally it is found in the udder, and when located in this organ

it causes a nodulated state of the diseased quarter or quarters that presents clinically a condition that it is impossible to tell from tuberculosis of the mammary gland, the udder in either case having a hard, nodulated feeling, such as would be expected to be present in tuberculosis of this organ. Until the nodules of actinomycosis break and discharge their contents through the milk ducts, there is probably no danger from the use of the milk from such cows; after they do, the milk should be looked upon as unsuitable for human food until more is known about this disease.

Two cases of this character have had the attention of the Board called to them during the past year. One, a cow at Salisbury, was killed upon a physical diagnosis of tuberculosis of the udder; on post-mortem no lesions were found except in the udder, and when examined microscopically were found to be those of actinomycosis. The other occurred in Arlington. The cow was tested with tuberculin because of a nodulated udder, and reacted, and when she was killed the mediastinal glands were tuberculous, and the udder was apparently so to the naked eye; but when it was subjected to a microscopic examination the nodules were found to be actinomycosis, the reaction to tuberculin resulting from the tuberculous condition of the mediastinal glands, and not because of the nodulated condition of the udder. Guinea pigs inoculated with milk from this cow in November, before she was killed, have as yet developed no evidences of disease of any kind.

Four cows have been quarantined by the local inspectors as having actinomycosis or "lumpy jaw." One in Barnstable was killed and found to have tuberculosis associated with the other malady. Another animal in Attleborough was killed because she had actinomycosis in an advanced form. Two other cases, one in Northfield and the other in Williamstown, were released. The agent of the Board who examined the Northfield cow reported that the trouble was due to a diseased tooth; the other one was but slightly diseased and her owner was given an opportunity to fatten her, as the public good did not seem to require the immediate slaughter of the animal.

The most interesting cases of this malady are those where

it occurs in the udder; but, considering the great infrequency of this disease in man, it does not seem probable that milk can be a source through which it is communicated.

INFECTIOUS MAMMITIS.

Early in June the following letter was received from a farmer in Tyngsborough, who had a similar trouble in the summer of 1898:—

TYNGSBOROUGH, MASS., June 10, 1899.

Cattle Commissioners, Boston.

I lost three cows last summer with some disorder of the bag; at present I have four that are taken the same way. I can't find any one that knows anything about it. I would like some one to come and see about it. Please come to-day. I have only nine cows in all, and feel quite discouraged.

Respectfully,

PAUL KELLEY.

The matter was referred to Dr. J. M. Parker, asking him to act as an agent of the Board of Cattle Commissioners, and he submitted the following report:—

HAVERHILL, June 12, 1899.

MY DEAR DOCTOR:—I went to-day to Paul Kelley's, Tyngsborough, and found he lived at Dunstable, about three miles from Tyngsborough. He has nine cows in all; four were in the barn. No. 1 is a Holstein; she comes in September 1, and has been giving six or seven quarts of milk. She became sick June 9. Her temperature is normal, $101\frac{1}{2}^{\circ}$; breathing slightly hurried; lame and stiff behind, so that she has difficulty in getting up; appetite poor; salivates a good deal. The right hind quarter of the udder is slightly swollen and red in color; milk secretion almost entirely suspended; and from the affected quarter there is a flow of watery fluid, containing floculi of lymph.

Cow in stall No. 3 is also Holstein; comes in September 15; has been giving about six quarts of milk; has fair appetite; temperature 103° ; udder red, swollen, hard and sensitive; milk secretion practically stopped; two hind quarters secrete watery fluid; taken sick about June 7.

Cow in stall No. 5, Holstein, comes in about the end of September; has been giving eight or nine quarts; gives no milk; udder swollen, tender and red; from two hind quarters secretes watery fluid; temperature, 101° ; breathing hurried, about 48; eating fairly well; taken sick about June 8.

Cow in stall No. 8, temperature, 102°; breathing fast; scouring; very lame behind; both hind limbs swollen; not much appetite; had been giving about six or seven quarts of milk; both hind quarters of udder swollen, red and tender; secreting watery fluid.

In all the udder seems to be the centre of infection. Last summer he had three affected in the same way as these; there was finally gangrene and sloughing of parts. He describes the tissue of the udder as being black. I called it "infective mastitis." I instructed him to cleanse and disinfect his barn, to give his cows a dose of salts, and advised him to feed light; prescribed peroxide of hydrogen for injection in the udder, with external applications of belladonna and camphor ointment. I also advised separation of the well cows from those affected.

If you care to have Frothingham examine milk, I will send you sample. No sores on udder.

Yours truly,

JOHN M. PARKER.

SWINE DISEASES.

There was very little complaint of diseases among swine during 1899. The outbreak at Lanesborough, spoken of at the time of writing the last report, was investigated by Commissioner O'Connell. There were 17 animals quarantined, with three owners; one owner had 1, one 10 and another 8 swine. The single pig died before January 22, the other sick ones were recovering and were released January 24.

January 17, 3 swine were quarantined in West Newbury as having hog cholera. Commissioner Parker investigated this outbreak, and learned that 3 pigs had previously died; he killed 1 of the quarantined animals and ordered the other 2 killed.

March 1, a case of hog cholera was reported in a pig that died at Hardwick. The nature of the disease was discovered on post-mortem by Dr. Switzer, and specimens sent Dr. Frothingham for examination were lesions of hog cholera.

March 1, 5 swine were quarantined by the inspector of Fall River on suspicion of having tuberculosis, but investigation by a member of the Board found 2 pigs sick and 3 healthy. These pigs were fed city swill, and either had hog cholera or swine plague. They were released from quarantine April 26.

May 30, 53 swine were quarantined in Lowell as having hog cholera; they were visited by an agent of the Board

twice, and the changing of food and surroundings showed an improvement, and they were released June 28.

October 13, the inspector of North Adams quarantined 17 pigs as having hog cholera; an agent of the Board found them suffering from an infectious fever of some kind; 14 young pigs died, 3 old ones recovered and were released from quarantine November 27.

October 9, the inspector of Shelburne reported a case of hog cholera in a pig that died, but there seems to have been no further outbreak in this connection.

November 13, 2 swine were quarantined by the inspector of Swampscott because they were bitten by a dog suspected of having rabies; these have already been mentioned in the portion of the report relating to rabies.

December 9, the inspector of Beverly quarantined 26 swine, on suspicion of having hog cholera. This outbreak was investigated by an agent of the Board, and a pig killed and sent to Dr. Frothingham on post-mortem presented the appearance of hog cholera. Another pig that was sick was killed by a neighbor's dog. The rest seemed to be recovering, December 28, as a result of changing their food from city swill to grain, putting them in new pens, and separating the diseased from the healthy. They were released December 29.

Another outbreak among a herd of 23 head in Colrain is still in charge of an agent of the Board. This case is evidently traceable to feeding swill from hotels.

It will be seen from what has been stated that the course pursued in these outbreaks is to quarantine the swine, forbidding the owner to sell or buy any until his premises are again free from disease, and advising a change of food, or boiling the swill, new pens, and separating the sick from the healthy. This seems to be about all that there is to do at present, and the results appear to be fairly satisfactory.

Swine diseases do not seem to be as important in Massachusetts, where the animals are kept in small lots and closely confined, as they are in the west, where pigs run in adjoining pastures in large herds, and sick pigs on a stream pollute the water supply and lead to the infection of those lower down the water course. In some sections of the west, such

as Iowa, Missouri, Kansas and Nebraska, swine diseases are very important, and cause losses of hundreds of thousands of dollars annually.

The Bureau of Animal Industry of the United States Department of Agriculture is experimenting at the present time in an attempt to produce a serum for the protective inoculation of swine with hog cholera and swine plague, and trials made with the serums so far produced seem to have been quite successful; but so far the production of these serums has been rather expensive, and more researches will be required before arriving at an established basis.

Dr. A. T. Peters, of the Nebraska Agricultural Experiment Station, is working to produce an attenuated germ of hog cholera to use for a preventive inoculation, but his results are not yet definite.

A cause of confusion with the contagious swine diseases that are commonly spoken of as "hog cholera" is that there are two distinct infectious diseases of swine; either may be met with, especially in the east. One is hog cholera, the other swine plague; an outbreak may be one disease alone, or the two diseases may be associated in the same pig. In using a preventive virus or serum, it will first be necessary when the disease appears to decide which has to be dealt with, or whether both are present. Many times this cannot be positively decided upon unless the germs are isolated and cultivated, in order to see whether the organisms of one or the other or of both diseases are present.

Hog cholera is more a specific disease of the pig than swine plague; the former is confined to swine alone, while the latter seems to be more of an infectious pneumonia due to a germ found in putrifying swill, and may be communicated to sheep and lambs, calves and perhaps horses.

If the Board were in a position to do more for the farmer in helping him to prevent or limit outbreaks of contagious disease among swine, it is possible more reports would be received relating to them; as it is, it would appear that these diseases have not prevailed to any very alarming extent during the past year.

As has been said in previous reports, tuberculosis is not an infrequent disease among swine raised in Massachusetts, and is most frequently met with in pigs kept in cellars under cow barns on farms where tuberculosis exists in the cattle. It is not a source of great loss, as pigs are usually so young when killed that the lesions are not extensive, and it is only occasionally that one is condemned as unfit for food at the time of slaughter.

OTHER DISEASES.

In addition to the diseases mentioned above, the commission has been called upon twice to investigate what were thought to be outbreaks of contagious disease, but which proved not to be.

June 12 a telephone message was received from the selectmen of Southborough that some of the cows in a herd were sick, and that poisoning was suspected; that an officer of the district police was investigating the matter, but they thought the Cattle Commission should investigate it also. The chairman and secretary immediately went to Southborough, and saw a herd of some 60 cows. Several had been sick and 1 had died, but the sick were improving. Samples of milk from a sick cow, taken by the commission and examined by Dr. Chas. Harrington of Boston, were found not to contain poison. Vomitus from a sick cow, taken by the State police and analyzed in Worcester, contained no common poison. As the summer was very dry and the pastures bare, it is probable the cows taken sick had eaten some weed or shrub that poisoned them, although what the plant was has not been determined.

Another case of poisoning reported to Mr. Herrick and investigated for him by C. A. Fenner occurred in Sutton, in July. Sunday, July 16, between four and five o'clock in the afternoon, 4 horses were turned out to grass on the grounds about the house, and all remained out until about nine o'clock, when 3 of the horses were put in the stable, 1 remaining out all night. Monday, July 17, about ten o'clock in the morning, 1 of the horses was noticed to be badly bloated, and discharging a white substance from the mouth and nostrils. The other 3 horses were found to be in the same condition,

and 1 died on the afternoon of the same day. The remaining 3 have so far recovered as to be able to do light work. No evidence of any contagious disease has been discovered. It is the opinion of Mr. Marsh that the horses were poisoned in the stable during the night of July 16. He believes that strychnine was put in the mangers, and that the horses ate it with their grain in the morning.

Respectfully submitted,

AUSTIN PETERS, *Chairman*,
LEANDER F. HERRICK, *Secretary*,
CHARLES A. DENNEN,
Board of Cattle Commissioners.



